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The Impact of Healing Touch on Stress Levels in Hospital Nurses: A Quasi-Experimental Pilot Study

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The Impact of Healing Touch on Stress Levels in Hospital Nurses:

A Quasi-Experimental Pilot Study.

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Co-Researchers

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Dedication

Dedicated to hospital nurses and Healing Touch practitioners everywhere.

Nurses - you are the backbone of our healthcare systems. The system cannot survive without your compassionate care and hard work. You offer so much and often receive so little.

Healing Touch practitioners - you provide a safe, calm environment to those in need of stress relief and healing. Your unique healing abilities offer hope to so many.

Thank you all for sharing your time and gifts with us.

Acknowledgments

Together we wish to thank our teacher and mentor, Dr. Carol Geisler, Associate Professor of Holistic Health Studies at St. Catherine University. Without your patience, guidance, and comments we would still be wrestling with our thesis. Thank you.

We wish to thank HealthEast - St. Joseph's Hospital for allowing us to complete our study within their hospital. Thank you to the nurses who chose to participate.

A heartfelt thanks to our Healing Touch practitioners who volunteered their time and made this all possible! You rock!

Amy. I would like to thank my husband and children for being so patient and supportive while I worked on this thesis. You will always be first in my life.

Michele. Thank you to my Mom. You followed my progress, encouraged me and grew so much in your own beliefs by doing so. I appreciate all the gifts I inherited from you. I love you, Mom. To my five children, thank you for the support you gave by being yourselves and most of all for loving me. I love you all more than I can say. To *all* my grandchildren, thank you all for making me laugh and giving me the best hugs a Granny could want! Love each of you past the ends of the universe and back. Finally, to my crazy Old Guy. I cannot thank you enough for supporting my dream, even though it was difficult. For that and I more, I love you more than you will ever know. Thank you.

Abstract

Hospital nurses form the backbone of patient care in America. Due to the highly charged, stressful environment, hospital nurses self-report increases in stress, fatigue, anxiety, health concerns and declining well-being which can lead to burnout, impaired patient care, or career changes. Holistic interventions such as Healing Touch (HT) relieve stress and promote healing. The purpose of our research is to describe the impact of HT on stress levels in hospital nurses. For this empirical, quasi-experimental pilot study, with a pre-test post-test design, we used a convenience sample of urban hospital nurses (n=11) and paired them up with a Healing Touch Practitioner (HTP) to receive 3-4 sessions of HT prior to their shifts over a 6-week period. Instruments included the Depression Anxiety Stress Survey (DASS-21), Stress Thermometer, BP measurements, and journaling. Changes in BP measurements were not significant. However, changes in the DASS-21 were statistically significant. In their journals, most nurses reported stress relief, a sense of calmness, and centered mindfulness, whereas a few nurses reported no change from the HT. Qualitative and quantitative data suggest that HT reduces stress levels in hospital nurses, but more research is needed to look at the lasting effects and researchers would do well to compare to shifts with HT sessions before them to shifts without HT sessions. HT shows promise for stress relief for nurses and hospitals should consider offering HT sessions as a stress-reducing intervention. Implications for future research include conducting the study for a more extended period, use of daily Stress Thermometers, a larger sample size (including a control group), increased resources, and having only one journal question.

Keywords: hospital nurses, stress levels, Healing Touch, stress reduction, holistic

“Healers’ actions are beneficial, expressing healing in several ways. The experience of healing holds a sense of transcendence and enhanced empathy” .

Hines, Wardell, Engebretson, Zahourek, & Smith (2015, p. 28)

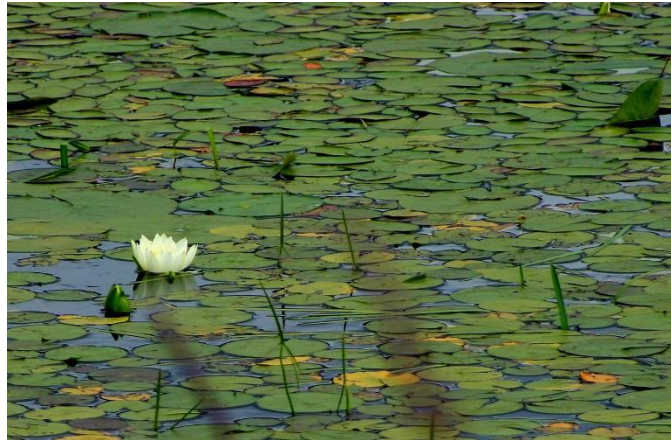


Image courtesy of photographer, M. Shapiro

Introduction

Registered nurses are the largest group of healthcare workers in the United States (Thew, 2017) and staff nurses are the “backbone” of healthcare and patient care in America (American Nurses Association [ANA], 2017a; Milliken, Clements, & Tillman, 2007). Hospital nursing is complex and requires physical labor. Nurses must demonstrate flexibility, the ability to multitask, a calm, steady demeanor and adaptability, all while keeping patients safe (Chang & Chan, 2015; Milliken et al., 2007; Oyeleye, Hanson, O’connor, & Dunn, 2013; Sarafis et al., 2016; Wright, 2014). Nursing also requires critical thinking, time management, prioritization, and professional communication (Centers for Disease Control [CDC], 2008; Chang & Chan, 2015). Due to the highly charged, stressful work environment in hospitals, nurses experience higher rates of depression, anxiety, PTSD, substance abuse and even suicide, than other professions (CDC, 2008; Mealer, Burnham, Goode, Rothbaum, & Moss, 2009; Milliken et al., 2007; Minority Nurse, 2016; Sarafis et al., 2016). Another issue that causes stress levels to rise is the work environment.

The fast-paced nature of hospitals focuses on crisis intervention rather than the whole person heightens stress levels in nurses when they perceive they cannot provide quality care to their patients (King, 2005; McIntosh & Sheppy, 2013; Rushton, Batcheller, Schroeder, & Donohue, 2015). Workplace adversity develops when work environments are unsuitable causing stress, pressure, fatigue, anxiety, and decreased health and well-being; nurses are unable to provide themselves with self-care and time for their job duties while providing quality patient care (McDonald, Jackson, Wilkes & Vickers, 2013). Adverse working conditions lead to burnout or career changes, and eventually affect the quality of patient care (King, 2005; Kovner, Brewer, Fatehi, & Jun, 2014; McDonald et al., 2013; McIntosh & Sheppy, 2013; Milliken et al., 2007; Nowrouzi et al., 2015; Sarafis et al., 2016).

Maintaining high professional standards and ideals while service demands are increasing is difficult and results in increased experience of stress for nurses (McIntosh & Sheppy, 2013). Appropriate stress-reducing tools are needed to support nurses and are often unavailable in hospital settings thus creating barriers to stress reduction (Pierce, 2007). The National Health Services [NHS] (2009) health and well-being report relates employee health and well-being to patient safety, patient satisfaction, and quality of patient care. The report demonstrates that when organizations prioritize staff health and well-being, performance levels strengthen, patient care improves, sick days are less, and staff retention increases. On the other hand, nursing turnover increases the use of physical restraints, pressure ulcers, and patients falling (Kovner et al., 2014). “If the expectation is that patients are to receive individualized and holistic care, it is reasonable for practitioners to be treated by their employers in the same way” (McIntosh & Sheppy, 2013, p. 39).

Holism in medicine views treating an individual as the sum of mind, body, and spirit, and supports the need for self-care for caregivers (Oxford living dictionary, 2018). Holistic interventions for caregivers such as meditation, Healing Touch (HT) and self-care ease stress levels and provide tools for resilience (Ayon, Levine, Cox, and Stiles-Smith, 2014; Krieger, 1979; Markwell, Polivka, Morris, Ryan and Taylor, 2016; Pierce, 2007; Williams, Simmons and Tanabe, 2015). HT is a holistic methodology that researchers agree shows value as a stress intervention (McElligott et al., 2003; Jain et al., 2012).

HT is a gentle biofield therapy redeveloped in the 1970's (after falling out of favor in the 1800's) by Dolores Kunz and others and is considered a holistic approach to healing (Healing Beyond Borders, 2017; Kreiger, 1979). HT uses intention with or without touch to support physical, spiritual, mental, and emotional health (Healing Beyond Borders, 2017; Wardell, Kagel, & Anselme, 2014; Kreiger, 1979). HT is a safe, standardized, non-invasive technique and complements conventional medical care (Healing Beyond Borders, 2017). HT is often used for stress and anxiety relief and is an appropriate tool for hospitals to implement (Wardell, Kagel, & Anselme, 2014) because of its' ability to accelerate recovery from surgery or illness (Healing Beyond Borders, 2017; MacIntyre et al., 2008; McElligott et al., 2003; Maville, Bowen, & Benham, 2008).

Healing Touch Program Inc. (2017) is peer-reviewed and accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission of Accreditation. In 1996 HT became endorsed by the American Holistic Nurses Association (AHNA) and the Canadian Holistic Nurses Association (CHNA). The National Institute of Health recognizes HT as a biofield therapy and nursing intervention (Healing Beyond Borders, 2017). Since stress is often a side-effect of the work environment for nurses (Applebaum,

Fowler, Fiedler, Osinubi & Robson, 2010) it is possible that incorporating HT (HT) as a holistic intervention for stress relief may increase staff wellbeing and morale (King, 2005; McElligott et al., 2003; Ott & Mulloney, 1998). Therefore, in this study, we describe HT as an intervention to reduce stress in hospital nurses.

Research Purpose

Hospital environments are fraught with issues contributing to increased stress for nurses. Stressors include patient needs, environmental concerns (noise levels, lighting, contagious diseases, chemical exposure), limited time for self-care, the frantic pace, and increased job expectations (Chang & Chan, 2013; King, 2005; Kovner et al., 2014; McDonald et al., 2013; McIntosh & Sheppy, 2013; Milliken et al., 2007; Nowrouzi et al., 2015; Oyeleye et al., 2013; Rushton et al., 2015; Sarafis et al., 2016; Wright, 2014). These factors often lead to stress and burnout (Chang & Chan, 2013; Rushton et al., 2015), so interventions are needed to decrease stress and increase the health and well-being of hospital nurses. Holistic practices are useful for stress reduction. However, the literature review establishes the lack of holistic stress-reducing interventions provided for nurses, including HT. Hospital nurses experience high levels of stress and need effective tools to reduce stress and cope (Pierce, 2007). Therefore, we decided that it is valuable to explore the use of HT as a stress intervention for nurses. The purpose of this research is to describe the effect of HT on stress levels in hospital nurses.

First, we begin with a literature review on hospital nursing and related stressors, the benefits and consequences of stress, healthy work environments, and incorporating HT as a supportive tool for reducing stress in nurses. Secondly, we share our research paradigm, personal lenses, and theoretical frameworks related to our study. Third, we describe our methods including our sampling, instruments, and data analysis process. In the fourth section, we share

our results and discuss our findings. Finally, the fifth section details holistic implications and future recommendations.

Literature Review

The purpose of this chapter is to review the literature on the effects of Healing Touch (HT) on stress levels of hospital nurses. First, we describe hospital nursing and its roles and responsibilities, including physical, moral and emotional distress. Secondly, we discuss stress, occupational health risks, benefits and consequences of stress, and stress management including healthy work environments and the importance of self-care. We then define HT, including historical background, and the effectiveness of HT in relieving stress. Finally, we summarize our findings and pose our research question.

Hospital Nursing

Nursing encompasses “protection, promotion, and optimization of health and abilities, prevention of illness and injury, facilitation of healing, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals” (What is Nursing, 2017, para. 1). Responsibilities of hospital registered nurses include physical exams, wound care, counseling, education, administration of medications, critical decisions about care, documentation, coordination of care and collaboration with many healthcare professionals. Registered nurses also direct and supervise care provided by licensed practical nurses (LPNs) and patient care assistants (PCAs) (ANA, 2017b). A reasonable nurse-patient ratio is 2-3 patients to one nurse on a general care unit and a 1:1 ratio in intensive care units (ICUs); however, a systematic review of 28 studies on nurse to patient staffing ratios demonstrated that the average was three patients per nurse in the ICU, 4 per nurse on surgical units, and 4.4 per nurse on medical units (Shekelle, 2013). The increased ratio causes more physical demands and emotional tension, precipitating stress. Next, we discuss consequences of stressors as they relate to hospital nursing, with a specific example of emergency room nurses.

Nurses' stress. Hospital nurses often experience high physical and emotional stress that can lead to burnout or career changes. According to Change & Chan (2013) symptoms of burnout “reduce [nurses'] critical thinking and problem-solving capacities, which can seriously affect the quality of patient care.” Negative consequences related to burnout among nurses and organizations include poor work attitudes, low performance, absenteeism, and job turnover (McIntosh & Sheppy, 2013; Oyeleye et al., 2013). For example, Toh, Ang, & Devi (2012) report that the global nursing shortage results in inadequate staffing, increased workload, and required overtime to finish one's job. These factors eventually cause nurses to leave their jobs and can cost up to \$6.4 million for a large hospital (Kovner et al., 2014).

During a shift nurses continually prioritize what patient they see and treat next. A nurse may have one patient in need of pain medication while their other patient is short of breath and having chest pain. Simultaneously, a nurse could be paged for a phone call from a patient's family member and have a fourth patient in need of the restroom. Patients may become upset about getting a pain medication late or having to urinate in bed when no one is there to help them, or they fall on their way to the bathroom. In addition, balancing and timing responsibilities are difficult when staffing levels are low or when patient volume suddenly increases with unexpected admissions from the clinic or emergency room. Stress results when nurses are unable to meet all of their work demands while feeling responsible for the outcomes of their patients.

Emergency room nurses, for example, are especially prone to stress because they often see patients with severe injuries after accidents, rapes, assaults, and gunshot wounds (Dominguez-Gomez & Rutledge, 2009). In addition to treating patients, emergency room nurses have the difficult role of witnessing families grieve and consoling them as well (Dominguez-

Gomez & Rutledge, 2009). Missouridou (2017) states that nurses continued exposure to death and patient suffering leads to the development of secondary traumatic stress. Secondary traumatic stress is similar to post-traumatic stress disorder (PTSD) but results from nurses providing care to persons during trauma (Dominguez-Gomez & Rutledge, 2009; Missouridou, 2017). In addition to the stressful mental and emotional work environment, the physical work environment can be a factor in stress as well.

Occupational health risks contribute to stress for hospital nurses (Nowrouzi et al., 2015; Sarafis et al., 2016). Examples of occupational risks include exposure to diseases and bloodborne pathogens, handling hazardous substances, caring for combative patients, and lifting and moving immobile or heavy patients. These risks are often debilitating causing musculoskeletal problems and injuries (CDC, 2008; Nowrouzi et al., 2015). Occupational stress also affects one's quality of life outside of work (Nowrouzi et al., 2015; Sarafis et al., 2016) with sore backs and feet among the frequent complaints of hospital nurses. Wright (2014) states that stress is an inherent part of nursing and individual nurses perceive and react to challenges differently. However, many nurses have more stress than they are capable of handling (Wright, 2014). Furthermore, nurses frequently ignore the environmental stressors that raise their stress levels (Applebaum et al., 2010). Emotional distress (anxiety and stress) eventually affects physical well-being, and stress-related disorders account for 75% of physician office visits and many hospitalizations among nurses (King, 2005; Kinnunen-Amoroso & Liira, 2014). Stress negatively impacts hospital nurses' health as demonstrated in the above paragraph. The following section describes types of stress including the physiology, and benefits and consequences of long-term stress.

Stress

The Oxford dictionary (2018) defines stress as “a state of mental or emotional strain or tension resulting from adverse or demanding circumstances” (para. 2). Nurses who work in highly stressful environments not only experience mental distress, but physical and spiritual distress as well (Hsiao, Chien, Wu, Chiang, & Huang, 2010; Sarafis et al., 2016). Psychological stress results when demands are extreme and outweigh available resources (McIntosh & Sheppy, 2013). According to the American Psychological Association [APA] (2018) stress has different types including acute stress, episodic acute stress, and chronic stress. Acute stress (AS) is a short-term (one month or less) reaction to exposure to or experienced trauma relating to death, sexually traumatic events or serious injury. AS is usually short-term in character and displays 9 or more symptoms of stress as outlined in 5 categories; intrusion, negative mood, dissociation, avoidance and arousal (DSM-5, 2013). The APA (2018) describes episodic acute stress as continuous bouts of acute stress, which become a cycle of stress-related behaviors. Symptoms of episodic stress fall into the same categories as acute stress, but symptoms are strongly associated with those of arousal (APA, 2018; DSM-5, 2013). Finally, chronic stress is long-term, habituate, and may become an accepted part of life (APA, 2018). While the symptoms are those listed under acute stress, the longevity causes breakdowns in physical health (i.e., heart attacks) and mental health (i.e., suicide, violence) and is difficult to treat (APA, 2018; DSM-5, 2013).

Innate stress response. The human body and mind have an innate ability to adjust to stressful situations by activation of the autonomic nervous system (ANS), composed of two parts, the sympathetic nervous system (SNS) and parasympathetic nervous system (PNS) (Charmandari, Tsigos, & Chrousos, 2005). During times of high stress such as a code blue (when a patient’s heart or breathing ceases) or multiple casualties, sympathetic nerve endings

secrete chemical messengers. The three most significant chemical messengers are; epinephrine released from the adrenal glands, norepinephrine from nerve endings throughout the body, and steroid hormones, such as glucocorticoids, also from the adrenal glands. Epinephrine and norepinephrine work within seconds and glucocorticoids work within minutes to hours (de Kloet, Joëls, & Holsboer, 2005; Tomas, Newton, & Watson, 2013). The SNS speeds up the heart and increases physiological responses such as blood flow to the muscles and brain, respiratory rate, attention, and responsiveness. All the above occur while suppressing appetite, digestion, growth, pain sensation, and the immune response (Charmandari et al., 2005; Milliken et al., 2007). These changes equip the body to handle stressors and preserve energy that is vital in emergencies. The PNS provides an opposing force to balance the body and enable a calm, relaxed state for recovery after the stress has dissipated.

Phases of stress. Cannon (1939) describes the stress response as a positive reaction for humans to handle all situations, including threats, by shifting energy, so the body is prepared to adapt accordingly. Selye (1956) describes the stress response as having three phases: 1st phase is alarm or fight-or-flight, 2nd phase is adaptation or resistance, and the 3rd phase is exhaustion. The second phase, with increasing stress hormones, is advantageous and satisfying and individuals are motivated to manage or control stressful circumstances. Benefits of stress include positive or pleasant sensations, enhanced memory, and cognition, increased productivity, increased motivation in job performance, a boost of energy, and individuals feel in control of their situations (Cannon, 1939; Hall, 2016, p.10; Milliken et al., 2007; Wright, 2014). These physical and mental changes allow hospital nurses to adapt to the many changes and challenges of their work environment. However, the response is meant to be short-lived and during the third stage, exhaustion, stress hormones deplete, and the body becomes vulnerable to chronic stress

and illness (Charmandari et al., 2005; de Kloet, Harst & Joëls, 2008; Emmons, 2010; McIntosh & Sheppy, 2013; Milliken et al., 2007; O'Donovan, Neylan, Metzler, & Cohen, 2012; Selye, 1956). In nursing, the third stage of the stress response, exhaustion, may result when the demands exceed the nurse's capabilities, physically and emotionally, over a prolonged period leading to negative consequences of stress (McIntosh & Sheppy, 2013).

Consequences of stress. Unfortunately, the ever-changing, fast-paced nature of hospitals affects the quality of care for not only patients but the health of nurses as well (King, 2005; Kovner et al., 2014; McDonald et al., 2013; Mealer et al., 2009; Rushton et al., 2015). Excessive or prolonged stress has negative effects (distress) and the body's adaptive responses become deficient or extreme making one more susceptible to psychological effects and physical illness, including heart disease, anxiety, and depression (Charmandari et al., 2005; de Kloet et al., 2008; McIntosh & Sheppy, 2013; Milliken et al., 2007; O'Donovan et al., 2012; Wright, 2014). Several diseases are the result of chronic, excessive, or depleted secretion of stress hormones. Diseases from excessive secretion of stress hormones include obsessive-compulsive disorder, chronic stress, anxiety, panic disorder, alcoholism, diabetes mellitus, ulcers, hyperthyroidism, malnutrition, high blood pressure, and obesity (Charmandari et al., 2005; Milliken et al., 2007; Wright, 2014). Diseases developing from depletion of stress hormones include depression, chronic fatigue syndrome, fibromyalgia, hypothyroidism, and rheumatoid arthritis (Charmandari et al., 2005; Milliken et al., 2007; Wright, 2014). In addition, health care workers who experience increased stress over time develop decreased levels of compassion and caring known as compassion fatigue (Firth-Cozens & Cornwell, 2009; Sarafis et al., 2016). Compassion is a normal human response to one who is suffering and Lombardo and Eyre (2011) state that "caring nurses, however, can become victims of the continuing stress of

meeting the often-overwhelming needs of patients and their families, resulting in compassion fatigue” (p. 1). Firth-Cozens and Cornwell (2009) note that supporting nurses helps prevent the painful experience of compassion fatigue.

Prolonged stress also leads to illness and staffing shortages, resulting in more stress for the remaining nurses (Kinnunen-Amoroso & Liira, 2014; McIntosh & Sheppy, 2013; Milliken et al., 2007; Wright, 2014; Sarafis et al., 2016). When nurses are distressed, fatigued, or mentally drained, energy reserves are low, affecting job performance and patient care. However, well-rested nurses with reasonable workloads have full energy reservoirs and are more productive (Kinnunen-Amoroso & Liira, 2014; McIntosh & Sheppy, 2013; Sarafis et al., 2016; Wright, 2014). Breaks during a shift are essential because they provide the opportunity for nurses to discharge their stressful energy and restore balance which is an important element of stress management (Kinnunen-Amoroso & Liira, 2014).

Stress Management

Stress is difficult to identify in the beginning stages (alarm or fight or flight); however, when it becomes noticeable in the later stages (exhaustion), it takes longer to eliminate and recover (Wright, 2014). The World Health Organization [WHO] (2017) states to minimize stress and maximize performance; it is beneficial to balance workplace demands with an individual’s ability to complete them. Balancing includes incorporating interventions to assist nurses in managing their job responsibilities, as well as decreasing demands (WHO, 2017; Wright, 2014).

The CDC (2008) lists the following stress management techniques: 1) training in coping strategies 2) progressive relaxation 3) biofeedback 4) cognitive-behavioral techniques 5) time management, and 6) interpersonal skills. Wright (2014) states that nurses have a responsibility to manage their health and personal stress by maintaining work-life balance. Balance

incorporates self-care and includes physical and psychological health. Examples of self-care rituals include sleep habits, exercise, nutrition, spirituality and coping mechanisms, including remembering positive experiences and leaving stress at work (Mealer, Jones, & Moss, 2012). Chang and Chan (2015) look at the relationship between coping and burnout and note that optimistic individuals are more positive and likely to seek out resources when stressed and less likely to show signs of burnout.

Existing programs offering stress management include the Cleveland Clinic's Code Lavender Program that Bakken (Cleveland Clinic, 2016) created at North Hawaii Community Hospital in 2008. The program is focused on crisis intervention and provides holistic support to staff, patients, and families in times of high stress (Cleveland Clinic, 2016). The holistic measures include massage therapy, energy-based healing, music, journaling, meditation, and guided imagery (Cleveland Clinic, 2016). Surprisingly, at Cleveland Clinic, health care providers are found to use the Code Lavender program the most (Cleveland Clinic, 2016).

Mayo Clinic offers an Employee Assistance Program (EAP) to employees and their families for personal or work-related reasons including stress (Plan Document and Summary, 2018). The website states that individuals can call to make a confidential appointment. Sadly, stressed nurses approaching burnout might not acquire attention until they reach the exhaustion phase (Kinnunen-Amoroso & Liira, 2014; Mackereth, White, Cawthorn, & Lynch, 2005) and doing so requires an appointment which may work for some, but is a barrier for most because of the inconvenience (Kinnunen-Amoroso & Liira, 2014). Stress management techniques are beneficial. However, barriers exist making it difficult to incorporate. The next section discusses barriers to stress management.

Barriers to stress management. Many barriers exist for stress management in hospital nurses. One barrier is that stress-reducing tools are limited in availability (Kinnunen-Amoroso & Liira, 2014). Available options are meditation or quiet rooms; however, they are in inconvenient locations, rarely utilized, and some employees are unaware of them (Kinnunen-Amoroso & Liira, 2014). Another barrier is time constraints. Nurses who are too busy to take a lunch break or sit down to chart will often overlook stress relieving measures in order to fulfill their job. When nurses do seek support for high stress from their employer's Employee Assistance Program (EAP), they are typically referred to psychologists because occupational health doctors do not feel they should be involved, thus making it the individual's responsibility for their stress management (Kinnunen-Amoroso & Liira, 2014). Also, interventions are rarely followed up on, and the most challenging is getting organizations to listen to recommendations made by the Occupational Health System (Kinnunen-Amoroso & Liira, 2014). Therefore, it is complicated by referring nurses to Occupational Health or therapists for daily work-related stress is complicated.

Employers have a responsibility to provide opportunities for their staff to relieve stress and develop coping strategies within the work environment (McIntosh & Sheppy, 2013). Readily available tools for stress management are essential to prevent the effects of long-term stress (Kinnunen-Amoroso & Liira, 2014). Tools or resources for nurses to relieve stress in their daily routine positively affects the environment and staff around them creating harmony and collaboration (Oyeleye et al., 2013). The importance of a healthy work environment, how it influences healthy, nursing practices, and its importance in the role of easing stress are discussed in the next section.

Healthy Work Environments

Holistic health considers the environment a factor in a person's health and well-being and believes one's body, mind and spirit are interrelated with the environment (King, 2005). The work environment has a tremendous impact on nurses' respect for one another. Nurses are responsible for their attitudes and self-awareness is a spiritual aspect of relationships. Oyeleye et al. (2013) state that nurses' negative attitudes leave poor impressions on their co-workers and negatively affects teamwork and the work environment. Changes in attitude lead to empowerment, and Oyeleye et al., (2013) note that when nurses support one another personally and professionally while utilizing tools to limit or minimize job stress, they can "propagate the culture of civility in the face of heightened levels of stress and burnout" (p. 537).

Health and well-being are essential to affect positive changes (Oyeleye et al., 2013). When health and well-being are unaddressed, nurses' stress levels increase, and mindfulness decreases, thus affecting patient care (Oyeleye et al., 2013). Self-care or lack of affects the work environment as well.

Self-care. The ANA (2017) states that "all must be mindful of the health and safety for both the patient and the healthcare worker in any setting providing health care, providing a sense of safety, respect, and empowerment to and for all persons" (para. 1). When nurses feel empowered and feel they have control of their work, stress levels decrease (Oyeleye et al., 2013). The ANA (2013) encourages nurses to focus on self-care so they can "provide the highest quality of care and serve as role models, advocates, and educators for their patients" (p. 1). Healthy and happy nurses are more capable of caring for patients and influencing their healing, in addition to positively affecting their work environment (Duran & Huckaby, 2015).

Kemper et al. (2011) surveyed 342 North American nurses interested in mind-body training for stress reduction. Most nurses (99%) already practiced some form of a mind-body technique for stress reduction (39% used HT or Therapeutic Touch) and 65% wanted more training (Kemper et al., 2011). Additionally, most nurses were interested in spiritual and emotional benefits, rather than physical benefits (Kemper et al., 2011). Developing stress reduction programs for nurses that draw from HT interventions used on hospital patients (oncology, surgical and heart) could impact nurses' well-being (Lu, Hart, Lutgendorf, & Perkhounkova, 2013; Oyeleye et al., 2013; Pierce, 2007). The next section describes HT, its' history, benefits, and implications for nurses as a possible stress management tool.

Healing Touch

Healing Touch (HT) is a biofield therapy that uses spiritual or universal energy to assist people in the mind-body connection healing process (Healing Beyond Borders, 2014; Kunz & Krieger, 2004; Wardell et al., 2014). Similar biofield therapies include Qigong, Reiki, Therapeutic Touch, and Polarity Therapy; and standard terms are energy healing, energy medicine, laying on of hands, and spiritual healing (Pierce, 2007). Pierce (2007) notes that although there are differences, biofield therapies share common beliefs including 1) The human body has a subtle energy system that interpenetrates the physical body and extends outwards beyond it, 2) The universal or vital energy is believed to flow through and be available to all beings, 3) Illnesses can be detected in the energy field before it manifests itself in the physical body, and 4) Energy healing practitioners are able to assist the self-healing ability of the body by assisting the flow and balancing of energy. Throughout this section, we review the literature that suggests that use of HT impacts stress levels. First, we discuss the history of HT. Next we define HT, and in the third part, we address the benefits of HT.

History. The history of energy healing covers millennia. Hover-Kramer (2001) notes that some early civilizations, cave dwellers in France, African bushmen in South Africa, and Ancient Egyptians all left pictorial evidence of the use of energy healing during the years Before the Common Era (B.C.E.). Energy healing, or the laying on of hands, for physical healing, is mentioned as far back as the third century B.C.E. (201-300 B.C.) in Rabbinic literature (Praglin, 1999). Energy healing was used B.C.E. by the Romans and Greeks (Field, 2014). The earliest mention of the laying on of hands for physical healing is in the Holy Bible and occurs in the Gospels:

When he was come down from the mountain, great multitudes followed him. And, behold, there came a leper and worshiped him, saying, Lord, if thou wilt thou canst make me clean. And Jesus put forth his hand, and touched him, saying, I will; be thou clean. And immediately his leprosy was cleansed (King James Version Holy Bible, Matthew 8:1-4).



Public domain image courtesy of

https://commons.wikimedia.org/wiki/File:Christ_Healing_the_Leper,_from_The_Story_of_Christ_MET_DP855485.jpg

Historical references include the concept of Royal Touch, claimed by the kings and queens of England and France, believing their touch could heal physical ailments and other conditions (Gosman, Macdonald, & Vanderjagt, 2005; Krieger, 2002). Robert II of France (987-1031 C.E.) was the first king to claim the right of Royal Touch (Duchhardt & Sturdy, 1992). There is evidence that Descartes' *Discourse*, published in 1637, with its emphasis on the separation of mind and body was the catalyst that caused the beginning of the end of energy healing (Hatfield, 2014). Charles X of France was the last king who practiced Royal Touch in 1825 (Duchhardt & Sturdy, 1992). At this time energy healing began to fall out of favor due to taboos (sexual), and the development of modern drugs and technologies (Field, 2014). Though energy healing fell out of favor among Westernized cultures, it remained in use among indigenous cultures (Wardell et al., 2014).

Energy healing came back into vogue in the United States during the late 1970's when Kreiger and Kunz began working with hospital nurses, building a healing program called Therapeutic Touch (Black et al., 2014; Krieger, 1979; Pierce, 2007; Wardell et al., 2014). Kunz's work led Mentgen to develop another form of energy healing, which Mentgen named Healing Touch in the late 1980's (Healing Touch Program, 2017; Pierce, 2007). In 1996, Mentgen formed a secondary affiliate called Healing Touch International (Healing Touch Program, 2011). Healing Touch International broke away from Mentgen's brand in 2008 and rebranded itself as Healing Beyond Borders in 2013 (Healing Beyond Borders, 2017). Both organizations use the term Healing Touch, which we define in the following section.

Definition of Healing Touch. The Healing Beyond Borders teaching guide (2017) defines HT as a "relaxing, nurturing, heart-centered energy therapy that uses gentle, intentional touch that assists in balancing physical, emotional, mental, and spiritual well-being" (p. 10). In

layperson's terms, HT is intentionally laying your hands either on a person's body or in the area above the body with the intent of providing healing energy to assist them in balancing the energy flow within their body. MacIntyre et al. (2008) state HT Practitioners aim to "facilitate the client's innate self-healing abilities, which may in part inspire consciousness-awareness, choice, acceptance, and balance (p. 32)." In the next paragraph, we address the benefits associated with the use of HT.

Benefits of Healing Touch. HT offers holistic health benefits as well as a sense of well-being to those who use it. These benefits include: a) decreased anxiety, mind clearing (McElligott et al., 2003; Pierce, 2007; Wardell et al., 2014), b) improved sleep quality (Pierce, 2007), c) pain reduction (Pierce, 2007; Straneva, 2000), d) lower blood pressure (McElligott et al., 2003; Pierce, 2007), e) stress reduction (Black et al., 2014; Field, 2014; McElligott et al., 2003; Pierce, 2007; Wardell et al., 2014), f) facilitation of wound healing (Hines, Wardell, Engebretson, Zahourek, & Smith, 2015), g) increased relaxation (McElligott et al., 2003; Wardell et al., 2014), h) increased sense of wellbeing (Zahourek, 2015), i) increased quality of life (Krieger et al., 1979), and j) a sense of inner harmony and balance (Black et al., 2014; Healing Beyond Borders, 2017; Pierce, 2007; Wardell et al., 2014). HT is beneficial in counteracting the effects of stress, which may benefit nurses (Black et al., 2014; McElligott et al., 2003; Pierce, 2007; Straneva, 2000).

Though HT may reduce stress among nurses, in the past 15 years, Coakley (2015), McElligott et al. (2003), and Stern (2012) all note that the majority of studies involving HT focus on nursing students, or on nurses administering HT to patients. Previous studies focus on cardiac patient healing, surgical healing, hospitalized patients, oncology centers, and osteoarthritis sufferers (Lu et al., 2013; Pierce, 2007). MacIntyre et al. (2008) show significant decreases in

anxiety scores in patients receiving HT after undergoing heart surgery compared to the control group. The success of this study led to the implementation of a hospital healing arts program that offers HT to all cardiac surgery patients. Maville et al. (2008) note that HT significantly decreases heart rate and anxiety levels and note a shift with reduction of sympathetic tone to a higher parasympathetic response, leading to a reduction in anxiety that aided the healing process. Additionally, the use of HT can be appropriate for the treatment of anxiety in PTSD. In a randomized controlled trial, Jain et al. (2012) combined HT with guided imagery to treat active duty military with post-traumatic stress disorder (PTSD) symptoms and noted significant reductions in cynicism as well as improved quality of life.

The holistic modality HT commonly offered to patients may be a beneficial intervention for caregivers and nurses (Pierce, 2007). Additionally, HT has the potential for reducing stress in the general population (Anderson et al., 2017; Hover-Kramer, 2009), but has yet to be studied as an intervention for reducing stress in nurses (Pierce, 2007). The lack of studies on the effects of HT on nurses indicates that further study on this topic is required.

Summary and Research Question

It is of paramount importance to nurses, their patients, and the healthcare institutions that hospitals acknowledge and address the high levels of stress affecting their health and well-being to increase resilience and create healthier work environments (Oyeleye et al., 2013; Rushton et al., 2015). The ramifications of high unmanaged stress levels lead to burnout, dissatisfaction, and a shortage of nurses (Buerhaus, Auerbach, Skinner, & Staiger, 2017; Oyeleye et al., 2013; Rice, Rady, Hamrick, Verheijde, & Pendergast, 2008; World Health Organization, 2013). The stressful nature and pace of healthcare are not likely to change and approaches for front-line stress-management such as HT are needed to support nurses in their role as healers (King, 2005;

McIntosh & Sheppy, 2013; Milliken et al., 2007; Oyeleye et al., 2013; Rushton et al., 2015). Providing on-site intervention is the most effective way to counteract the stress where it affects nurses (Oyeleye et al., 2013; Rushton et al., 2015). Therefore, our research question is: What is the impact of Healing Touch on stress levels in hospital nurses?

Lenses

The purpose of this chapter is to outline the relevant research lenses guiding us to develop, execute, and interpret this study. We recognize the important role our lenses hold in our research, and by sharing our theoretical, personal and professional lenses, we provide readers an opportunity to draw a clearer understanding of our design and interpretation. Being transparent about our biases and assumptions help readers view our study with a critical eye. In this chapter, we elaborate on the roles that our paradigm and culture of inquiry play in framing this research project. We describe the theoretical lenses guiding our study and their influence on our research development. Finally, we articulate our professional and personal lenses and how they impact the development, design, implementation, and interpretation of the study.

Research Paradigm and Culture of Inquiry

The post-positivist paradigm is the best approach for our research and leads us to a quasi-experimental, mixed method design. Post-positivism is a realistically based paradigm where causes define the results and seek proof while attempting to understand that discovery of the ultimate truth may never occur (Cresswell, 2014; Graham & Geisler personal communication, April 20, 2017). Researchers observe and measure the behavior(s) or outcome(s) as they pertain to the area of study (Creswell, 2014). In an unpublished paper by Graham and Geisler (personal communication, April 20, 2017), they state the post-positivist paradigm may be manipulative in format, compares current results with previous results, The hypothesis looks at the facts, likely results, accrues the knowledge from the study, and defines it with measurable results.

The selection of the post-positivist paradigm fits both our objective epistemology of discernment (particulars we know about the topic relationships), while understanding the impossibility of maintaining absolute objectivity, and fits our ontology of determining the nature

of reality, though in a critical manner. This paradigm allows the researchers to determine the impact of HT with quantitative and qualitative data that can be measured and repeated in future studies (Guba, 1990).

HT falls within the constructivist paradigm which conflicts with post-positivism. Using a constructivist bent in our post-positivist mixed methods research allows for a blurring of the lines between objectivity and subjectivity (Carroll & Rothe, 2010). However, by employing several different theories (Watson's Human Caring theory, Social Science Theory, and Rogers' Theory of Unitary Human Beings), we are able to obtain data that is not only replicable but provides a deeper understanding of the various phenomenon associated with HT. Grbich (2007) explains that systems creating the world may not be apparent, and if they are, they may be unclear; therefore, we need our creative minds to clarify their existence and to explain the process (p. 6). The field of nursing bridges the biological and psychosocial model, the post-positivist, or realist, and acknowledges more than one way (Grbich, 2007).

The post-positivist paradigm fits our study best because order, prediction, and control helped determine the impact of HT on stress levels in hospital nurses (Guba, 1990). However, this paradigm does not account for the fact that reality or natural laws are frequently incomprehensible to humans. Limitations of the post-positivist paradigm include that it does not acknowledge the various individual experiences of the subjects (Guba, 1990), does not recognize anomalies in the data, and excludes outside influences. Therefore, to create a more holistic study and acknowledge individual experiences, our design incorporates both quantitative and qualitative data.

We chose an empirical culture of inquiry because we were interested in the effect of an intervention, such as the experience of HT and whether it benefits its' receivers. We considered

an art-based Culture of Inquiry (COI) because we thought it would be interesting to measure subjects' perspectives of HT through the arts using photos, writing, or a variety of other media to track their progress/reactions to HT. We briefly considered a phenomenological COI. However, we realized that it did not serve our research topic, nor our post-positivist paradigm in a favorable manner (we would have difficulty providing a truly accurate description of the effects provided by HT in a replicable manner). Therefore, in order to describe cause and effect within our beliefs and answer our research question, the empirical culture of inquiry was most appropriate.

Theoretical Lenses

Three theoretical frameworks provide the necessary conceptual grounding for this study: Watson's Human Caring theory, Social Science Theory, and Rogers' Theory of Unitary Human Beings. Below, we summarize each theory and make specific connections to this particular project.

Watson's Human Caring Theory. Watson's (2009) Human Caring theory provides a framework for compassionate nursing care as well as supporting nurses' health and movement towards self-actualization. The theory acknowledges the importance of caregiver well-being and creating healing environments by promoting holistic care in all areas, including spiritual needs (Lowe, 2013). Nurses affect healing environments such as hospitals, and when individual nurses are healthy and happy, they are more equipped to assist their patients and coworkers in attaining health, healing, and happiness. This theory impacts the development, implementation, and interpretation of our research because it focuses on compassionate well-being for nurses. This theory supports our study because it promotes feelings of self-worth and value in nurse's jobs

and relationships. Watson's theory supports the idea that nurses' well-being impacts the quality of patient care. Our study aims to reduce stress and promote well-being for nurses.

Social Science Theory. Social Science Theory acts as an umbrella for mixed methods research. According to Creswell (2014), the Social Science Theory when blended with mixed methods research provides researchers with the opportunity to use both quantitative and qualitative data. Markle (2017) states that approaching research with a mixed methods study allows for greater data expansion of the quantitative data, thus increasing the value of the qualitative data. Using the Social Science Theory to umbrella mixed methods research fits within the positivist/post-positivist paradigm and allows for the qualitative research with a slight bent to the constructivist paradigm, supporting each paradigm in a way that clarifies the final quantitative and qualitative result(s) as they pertain to this particular research study. Social Science Theory impacts the development, implementation, and interpretation of our research because we employed several methods of data collection. This theory supported our use of quantitative data, balanced with the richness of journals-an exploratory, personalized form of qualitative data, which falls within the constructivist paradigm and blends into our post-positivist COI.

Rogers' Theory of Unitary Human Beings. Rogers' Theory of Unitary Human Beings states that the human and their environment are one (Rogers, 1986). One of Rogers' nursing theory concepts is the energy field. The concept of the energy field details the openness of the energy flow among humans and their environments (Rogers, 1986). Rogers' theory has a direct link with HT and how the practitioner influences the client's energy field to promote healing and well-being. The theory impacts the development, implementation, and interpretation of our study because our project focuses on nurses' stress levels, how it affects their well-being, and

eventually the patients and co-workers in their environment. We hypothesized that the provision of HT prior to a work shift would open nurses' energy fields in a positive manner. By using Rogers' theory, we focused on creating a healing flow of energy for the nurses that eased stress and positively affected their job duties, patients, and co-workers.

Personal and Professional Lenses

As we study the impact of HT on stress levels, we realize our research team brings personal and professional experiences, or lenses, that influence this project. In this section, we outline our personal and professional lenses. Next, we share our experiential interest in the project. Finally, we address our professional background and how it shapes the development, implementation, and interpretation of the study.

Amy. I have a Bachelor of Science degree in Nursing and have worked as a Registered Nurse at a hospital in acute care for approximately nineteen years. I am trained in HT and Reiki and believe integrating holistic modalities within the allopathic model that is led by doctors and scientists, benefits patients and staff alike. Nursing practice is one of the largest groups of healthcare providers and includes holistic ways of healing. I provide care for patients who are recovering from open-heart surgery and some awaiting heart transplants. Patients undergo major physical and psychological stress during their stay, and I am at their side to guide and comfort them during their recovery. Major components of acute care include administering medications, wound care, monitoring vital signs and heart rhythms, providing emotional support and encouragement, and educating patients and family on self-care and recovery. The atmosphere is fast-paced, sterile, and noisy with multiple beeps and alarms. The majority of patients recover well and are discharged from the hospital within a week; however, some are not so fortunate and remain hospitalized for longer periods, or even die.

My career as a nurse influences this project in a number of ways. I experience first hand the stress of nursing and how the demands affect my well-being. The hospital I work at has very good nurse-patient-ratios and high standards, however; there are still times when I am unable to take a deep breath, complete the care a patient deserves, or care for myself. I feel irritable and helpless when I am pulled in too many directions and do not have time to fulfill the demands. Some nurses I have worked with have left the hospital for a clinic position due to the intensity of stress in hospital nursing. When I talk to these nurses now, they state they are surprised by how much stress they had while working in the hospital.

I maintain balance in my life by working 0.75 and not working over-time. I am fortunate to have a supportive spouse who contributes to our income and raising our children. I take time outside of work to enjoy leisure activities with my children, my dog, and my husband and friends. I also enjoy house projects and love landscaping our yard. This balance helps me feel ready to go to work and enjoy my career as a nurse.

I rotate in the role of charge nurse and get a broad view of all of the patients and nurses on the unit. I have listened and supported nurses in situations where the pressure was too much and resulted in tears. When my time allows I provide HT to staff, patients, and families. I have also been on the receiving end of Reiki from my nurse manager. Afterwards, I notice a calmer environment and believe the self-care and support from fellow staff affect the environment. These professional experiences impacted my role on this research team because I realized how it affected my stress level, and I wanted to study it on other nurses. I acknowledge that some nurses have a strong biomedical focus and do not have knowledge of energy-based therapies, and may lack interest in our study.

I have a personal experience of unsuccessful medical treatment by a world-class organization because my symptoms did not fit into the diagnostic model many doctors use. Limitations of the western medical culture created a spark within me to discover true healing and alternative ways of knowing surfaced. I experienced the effect of Reiki, a form of energy healing, and was awakened by the energy. I endured an emotional journey to restore my health, and my lens continues to widen. I enrolled in the Master of Arts in Holistic Health Studies program, became certified in HT and Reiki, and am here today because of faith, perseverance, self-discovery, and a desire to help others. By honoring my personal and professional lenses, I maintain reflexive awareness of the issues and present with an open mind towards others' interpretations of their health and ways of healing.

My daughter was diagnosed with an autoimmune disease called *chronic recurrent non-bacterial osteomyelitis*, and suffered severe pain, limping, and weakness for two months. She was lucky to be diagnosed quickly by world-class doctors, but the only treatment was ibuprofen and physical therapy. My husband and I were fearful for her health and well-being and were surprised by the limited treatment. I gave her Reiki and HT to try to decrease her pain, and she was in many family members' prayers. My intuition told me something else was causing this and that more had to be available medically. I asked myself, "Why would a rare autoimmune bone disease affect my daughter at such a young age"? I immediately made her an appointment with the chiropractic clinic that guided me through my healing with Nutrition Response Testing. After two months of treatment with whole food supplements for inflammation and digestion, the Nutrition Response Testing revealed a sensitivity to wheat. We eliminated wheat from her diet, continued her supplements, and eventually she was pain-free, gained her strength back, and was running and doing handstands again. This experience was a reminder for me to

further explore holistic ways of healing and guided me to design, implement, and interpret this research project.

I believe we need to continue building the bridge to combine allopathic and holistic health to guide people in need to health and healing. By honoring my personal and professional lenses, I attempted to maintain reflexive awareness of the issues and present with an open mind towards others' interpretations of their health and ways of healing.

Michele. Professionally, I come from many places: child-care provider, executive assistant, Therapeutic Recreation Specialist (TRS), caterer, highway construction truck driver, school cook, Reiki practitioner, HT practitioner, and herbalist. Together these jobs give me an unique view of health, of life, of wellbeing. All my professional experiences helped shape me into the person I am now, just as the experiences of life do. The two that have influenced my professional views and selection of a research topic the most are being a TRS and a HT practitioner.

Therapeutic Recreation (TR) has many definitions. My favorite is: "Therapeutic Recreation is the purposeful utilization or enhancement of leisure as a way to maximize a person's overall health, well-being, or quality of life" (Robertson & Long, 2007, p.4). I love that TR is a holistic methodology used to treat the entire person (mental, spiritual, emotional, physical and social aspects). While working with patients, I was able to help them decide which of their activities of choice had the greatest benefit for them. I utilized massage and guided relaxation as well. These options allowed both the patient and I to be creative in our approach to their healing. Creativity is a quality I feel is important to all forms of healing. I chose to study Therapeutic Recreation because my son was born with Cerebral Palsy and I wanted to be prepared to help him enjoy his life then and now.

My professional background as a TRS influences my view of our topic. I worked in a hospital/nursing home/hospice setting in which we moved at breakneck speed, often having to provide services for 70-125 patients daily, plus charting and feeding duties. More shifts than not, I missed my breaks and worked overtime. Finding time to step away from the stress on the job was nearly impossible. Additionally, I saw firsthand how overly stressed out nurses were because of their job demands. My perspective as a TRS forced me to look at how to design a project that provided support and healing for nurses because of the high stress levels found in their jobs. My experiences as a TRS ties into this study because of its' emphasis on holism and quality of life for all. Moreover, my holistic training as a TRS led me to seek ways to efficiently offer HT in our study, without additional stress.

Healing by touch is an innate ability in my person, call it genetic memory. I have always possessed an ability to soothe and heal through touch (my mother, grandmother and great-grandmothers all had this ability too). As an untrained child, I would often place my hands on my siblings' injuries, and my own. That touch seemed to relieve our pain almost immediately.

Going ahead some years, I used touch (though the idea that touch could heal had been introduced by Kreiger and Kunz as therapeutic touch on the East coast, in the Midwest it was unknown to the common person – and I had no knowledge of their work) and massage on my preemie son to help him breathe, grow and sleep. I continued to use it on my other children and do so now with the children I provide with childcare - for illness, childhood stress, and sleep. My successful use of touch to help affect healing in others, led me to this research. Since I had success in helping children using touch, it stood to reason that touch (in the form of HT) would help in stressful situations.

Studying HT came about because I hold a lifelong belief that touch heals. I took my first HT class in 2016 at St. Catherine University and knew this was the opportunity I needed to build on my innate abilities. Practicing on classmates and other volunteers, I realized that the power of HT was even farther reaching than I imagined. Therefore, my personal belief in touch, influenced by my recent training affected the research topic choice of looking at the effects of HT on nurses and stress. Through our study, I hoped to find a way to reduce the daily stress levels. The opportunity for the nurses to receive HT before their shifts was chosen to have a greater impact on a shift's stressors, including how the participant dealt with the stressors.

My perspective on our project comes from many angles, a culmination of all that I am. Because of these experiences, my lenses and my point of view lean towards stress levels do affect the nursing staff negatively, which in turn affects patient care. My strongest influence in choosing this project is that I am the parent of a NICU baby (now adult). I saw first-hand how stressed the nurses were in a unit that was constantly in crisis. They had very little downtime, which worried me, because I saw it affecting patient cares, interactions with other staff and paperwork. I wondered how they could do this demanding job and maintain their sanity. They had no outlets for stress relief, and that is a dilemma that stayed in my mind. Additionally, I have been a surgical patient at several different hospitals over the years, again noting the stressful environment, along with the demanding pace the nurses maintained (often without breaks, or meals).

On a personal level, my lenses are shaped by the past and present. With my varied history, I chose to use a poem format called "*I am from...*" developed by Dr. Joi Lewis to describe myself and how I relate to our research topic. My unique history and experiences in life give me a strong base, the will to love and survive as described in the poetry below.

The Road to Myself

I am from an ancestry that blends Native American, Irish, Czech and German immigrants, proud of their heritage, accepting, with deep-rooted strengths, fighting for equality, for social justice, health, freedom, and peace – no matter how personal the cost. My penchant for health issues calls me to do this research, to help others achieve optimal, holistic health, through the implementation of HT leading to self-healing.

I am from a rich history, filled with women and men who gave me more gifts than I can imagine. I am from a long, long line of strong, resilient women – all healers, leaders, nonconformists who do not believe all they hear, blazing trails in a world that fails to honor women's gifts. Proud, sturdy women who fiercely defend and care for loved ones. From a great-grandmother who used massage and touch to heal a daughter with polio to a mother who held our hands, rubbed our backs sending healing deep into the bodies of her children.

I am a mother, my most important role. NICU was my home for several weeks. The first child arrived nearly eight weeks too soon, left for dead when a miracle occurred. Nurses, stressed, harried, kind and loving provided care for 4-5 babies teetering on the brink. A second child exits the world five months into the pregnancy; I am dying the doctor tells my then spouse. Nurses hold my hands, reassuring me that they will find a surgeon. Always, I felt the pain of their stress. A third child, different hospital, the baby is blue. Nursing staff hurries to get her breathing, all with an urgency that worries them and me. A sigh of relief when the fourth child arrives, and all is normal. Because of these children, I am a daughter of change, of gratitude, and of sorrow and darkness - learning to accept what is, but always seeking solutions.

That is not all who I am. Some memories define me; they brought growth. Parts of me that throb with playfulness, remind me to stay true to myself.

I am from rumbling locomotives whistling plaintively in the night, blustery roars of lions, heavy, quaking, rumbling city buses that shake the house, sparkly booming fireworks, howling of wolves, leaping, lapping waves of lake, screaming, yelling children and bells of the Catholic church tolling heavily at funerals, caroling at Christmas, calling all to worship. My soul always belongs to Gitche Gumee and the forests of my Native ancestors.

I am from scents and sights of freshly mown grass, barbeques, mini-donuts, lilacs, roses, steaming tar, pine forests, rivers and lakes fill the summers. Autumn leaves burning, smoke curling heavenward, the crunchy hush of the forest, applesauce simmering, sweaty children playing ball in the streets. The hush of winter snows, laughter sledding down Bison Hill, frosted pines, deer tracks in soul spots, hot cocoa, holiday baking teases, tantalizes my taste buds. Spring dances with rain, budding birch, maple, flowering apple and dogwood, first violets gently smiling, scenting the air, a puddlicious world, filled with mud pies. The things above and always make me who I am now, influence who I will be tomorrow.

Thus, it is with awareness of my lenses that I work to keep my thoughts free of biases by asking questions of myself and others, by choosing to observe what is happening in the data, reading the written responses of the participants without judgment, listening to the data and withholding my opinions. I did this through self-control, rereading my comments and editing them, and by having others read my writing and making suggestions on how to improve it.

Method

The purpose of this chapter is to describe our quasi-experimental method used to answer our research question “What is the impact of Healing Touch on stress levels in hospital nurses?” Within the paradigm of post-positivism, researchers elect to test their hypothesis, with the understanding that it is difficult to be objective about the reliability and validity of the data (Creswell, 2014; Guba, 1990). The post-positivist paradigm allows readers to review our results and form their conclusions based on the data presented. Our choice of an empirical culture of inquiry is compatible with our paradigm because empirical culture takes a body of data and applies that data to the relevant areas of a study (Bentz & Shapiro, 1998).

First, we explain our reasoning for selecting a quasi-experimental design. We then provide an in-depth account of our sampling procedures and instrumentation, including the reliability and validity of the instruments. Following this, we discuss the ethical factors involved in using human as subjects in research. Next, we explain the process of data collection and analysis, including design rigor, reliability, and validity. Finally, we present the limitations of our research.

Rationale for Quasi-Experimental Method

Our literature review points out the importance of reducing stress among hospital nurses to preserve their health and well-being, reduce burn-out, and ensure proper patient care. The literature on Healing Touch (HT) holds promise for stress reduction. However, the majority of studies are on patients, not nurses; therefore, we selected HT as the intervention for this quasi-experiment. Quasi-experimental designs, also referred to as field research, are structurally the same as actual experiments, but groups are not randomly assigned as they are in true experiments (Creswell, 2014; Edmonds & Kennedy, 2013; Child Care, 2018). Another difference in quasi-

experimental designs is that they lack a control group (Creswell, 2014; Edmonds & Kennedy, 2013). Quasi-experiments involve a convenience sample and use open and close-ended questions, independent and dependent variables, and seek to discover cause and effect, such as whether HT before a nurses' shift impacts their stress levels (Creswell, 2014; Edmonds & Kennedy, 2013). This method allows for collection and integration of both quantitative and qualitative data. Within our quasi-experiment, we utilized a pretest and post-test design (Edmonds & Kennedy, 2013) because we wanted to know if the independent variable (HT) had an impact on the dependent variable (stress levels) in hospital nurses. We did not consider an experiment with a control group because we did not want to deceive the group; therefore, the quasi-experimental was the most appropriate method.

The quasi-experimental method best fits our culture of inquiry and is the most appropriate approach for our research question enabling us to create a holistic, multi-data-based study, and acknowledge individual experiences. A strength of the quasi-experiment is that it is time sensitive and creates efficient feedback. A limitation of the quasi-experimental method is there is no control group, and there may be other variables influencing the outcome (Edmonds & Kennedy, 2013). We chose multiple data sources; quantitative (DASS-21, Stress Thermometer, and Blood pressures) and qualitative (journals, intake and exit surveys) to help triangulate our data. Miles, Hwere, and Saldaña (2014) report that triangulation is not always simple though and when two of the three measures disagree there is a crucial question to answer. By triangulating the data through quantitative and qualitative results, we acquired comprehensive answers that added validity to our study (Creswell, 2014) and reduced researcher bias.

There is also a need for the knowledge of statistics and time for analyzing it, and researchers need to be familiar with both forms of research. While collecting both quantitative

and qualitative data is time-consuming, combining them enhances our validity, brings strength to our research, and creates a richer, deeper conclusion to our hypotheses, question, and data (Grbich, 2013).

Sampling

Our sampling consisted of a non-randomized, convenience sample of hospital nurses at one urban, Midwestern hospital, who self-report stress. Convenience sampling, also known as non-probability sampling, is a low cost, time efficient way of recruiting participants based on their availability, or convenience (Creswell, 2014; Edmonds & Kennedy, 2013). Convenience sampling was a strength for this study due to the ease of quickly approaching prospective candidates given the time constraints. Our choice of hospital was based on the location and the hospital's willingness to accommodate our study. We contacted the hospital's Chief Nursing Officer who welcomed our study and connected us with a hospital nurse clinician. We then completed the hospital's IRB process and once approved, began recruitment.

Selection criteria for up to 50 nurses included: 1) RN or LPN, includes floor nurses or nurse managers, 2) males or females, 3) ages 22-65, 4) available prior to their shift, 5) ability to recline or lay flat, 6) ability to fill out questionnaires, and 7) literate and English speaking (since participants filled out questionnaires and journaled). After considering whether to include or exclude nurses with prior exposure to HT, we decided to include them since we did not think previous exposure would affect the study and keep the candidate pool wider. We also chose to include nurse managers instead of strictly bedside nurses, again to widen the candidate pool.

We recruited participants via a flyer (Appendix A) that our hospital contact placed throughout the hospital, and nurse managers emailed a copy to their staff. The flyer asked for individuals, who desired HT for possible relief of stress. We asked that they demonstrate a

willingness to dedicate necessary time, journal after each session, and provided an email address for interested volunteers. We verified inclusion criteria via email. Interested nurses received an email acceptance to the study (Appendix B), along with a copy of the Letter of Consent to review (Appendix C), a written description of what HT is and is not (Appendix D), and a letter that they were to sign and return stating that they are not pregnant (Appendix E). The same email asked the nurses to provide their schedules. We reviewed the nurse's schedules and the HTPs' schedules and paired them up accordingly. We then emailed the intake survey to the participants and asked them to complete before their first HT session, along with the date and time of their first session. A total of 24 nurses emailed the research team indicating their desire to participate in the study. However, due to late responses (3), participant withdrawals (5), and difficulty with scheduling (5), our final sample size was (n=11) nurses.

Instrumentation

We used eight instruments to collect quantitative and qualitative data:

- 1) Healing Touch Practitioners (HTP)
- 2) Intake Survey (Appendix F)
- 3) Depression Anxiety Stress Survey (DASS-21) (Appendix G)
- 4) Stress Thermometer (Appendix H)
- 5) Blood Pressure (BP) Measurement
- 6) Journaling (Appendix I)
- 7) Exit Survey (Appendix J)
- 8) Noel's Mind Clearing
- 9) Chakra Connection

Next, we describe the instruments and their reliability and validity.

Healing Touch Practitioners (HTPs). To maintain objectivity, we chose to not play a dual role as healers and researchers in our study. Therefore, we contacted 16 Healing Touch Practitioners (HTPs) who were trained at level 2 or higher via email or phone to volunteer their time for our study. All HTP's were former classmates, people we know personally, or were friends or acquaintances of HTPs. HTPs received a list of guidelines for conducting the HT sessions (Appendix K). However, due to scheduling difficulties (4), life events (2), and miscommunication (2), our final number was (n=8) HTPs. The HTPs are females, ages 24-72, and have 1-5 years of HT experience. One HTP is an occupational therapist, 2 are retired nurses (with 20+ years of nursing experience each), 2 work as energy healers, and 1 is a full-time parent. We did not request notes from the HTPs to avoid personal opinions. We provided them with specific instructions, but there is no information on their reliability or validity.

Intake survey. We developed an intake survey form with ten brief questions. We emailed the form in a Google Survey format to all participants. The questions were fill in the blank or short answer and collected information such as gender, years as a nurse, and prior experience of HT. Information regarding years as a nurse and prior experience of HT is important because it could relate to stress levels or show bias on why participants volunteered for the study. There is no proof of reliability or validity within the form since researchers developed the questions. A strength of this form is convenience and ease of access. A limitation is that it is short and asks few questions.

Depression Anxiety Stress Scale-21. The Depression Anxiety Stress Scale-21 (DASS-21) a public domain 4-point self-report scale used to measure symptoms of stress, depression, and anxiety experienced over the past week (Lovibond & Lovibond, 1995). Scores of 0-14 indicate normal stress levels, 15-18 mild, 19-25 moderate, 26-33 severe and 34+ extreme

stress. Cronbach's alpha: Reliability was .88 for the Depression scale, .82 for the Anxiety scale, .90 for the Stress scale, and .93 for the Total Scale (Henry & Crawford, 2005). The DASS-21 shows evidence for good convergent and discriminant validity when compared with other validated measures (Henry & Crawford, 2005). Strengths of this instrument are the concise questions and the short amount of time to complete. Limitations of the DASS-21 is that it may not capture individual responses to stress and participants may not relate to the questions.

Stress Thermometer. We used a Stress Thermometer to measure the amount of perceived stress. The tool is in the public domain and was initially developed by the National Comprehensive Center Network (NCCN) for distress management in cancer patients. The thermometer is an interval scale numbered 0-10 and asked the participant to pick a number corresponding to their level of stress in the past week including the present day, where zero is no distress, and ten is extreme distress (NCCN Distress Thermometer, 2017). While there are not standardized measurements of reliability for the Stress Thermometer; Low et al. (2018) note that it produces reliable and valid results. Strengths of this simple tool are that it is quick and easy to understand. Limitations of the Stress Thermometer is that it does not account for the work events the nurse's experienced that day, and the nurse's may score lower because they are relieved their shift is over. Also, participants could see their own pre-stress rating when they filled in their post-work rating, which may influence their answer.

Blood pressure measurements. The HTPs took the participants blood pressure (BP) measurements before and after each HT session with an adult sized, Omron BP785, automatic BP machine. There is no reliability or validity information on the Omron BP785 BP machine. McElligott et al., (2003) note a decrease in blood pressure is indicative of stress reduction. To ensure the cuff was calibrated and working, one of the researchers took three BPs

on herself before the start of the study, and all three measurements were consistent with prior readings. A strength of blood pressure measurements is they are easy to do and provides immediate data. A limitation of using blood pressure readings is that our data does not account for the variables affecting them, including health and environmental factors, as well as prescription medications that affect the participants on a day to day basis (Larkin, 2005; Musini & Wright, 2009).

Journaling. We developed three journal questions for participants to complete at the end of their shift on days they received a HT session. The journals were small, hand-bound with a pale pink cover, a photo that reads Relax, Body, Soul, journal title, and a place for the participant's identification number.



The journals had three open-ended questions: 1) What impact did Healing Touch have on your stress and anxiety levels as a hospital nurse? 2) What was your overall experience of the Healing Touch session? And 3) How did the Healing Touch session impact your work at the hospital today? There was a fourth page for personal reflections on each session. Participants answered all three questions and wrote a personal reflection at the end of the day on the days they had HT. There was a final page where participants could write final thoughts on their

overall experience. The journal questions did not ask about causes of stress or other stressors outside of their work environment. Thus, there is no reliability or validity because the responses reflect individual experiences and are subjective. The strength of a journal is the participant's ability to self-express their experiences of the HT. The limitation of a journal is that the answers are subjective and personalized, so it is difficult to be objective in interpretation.

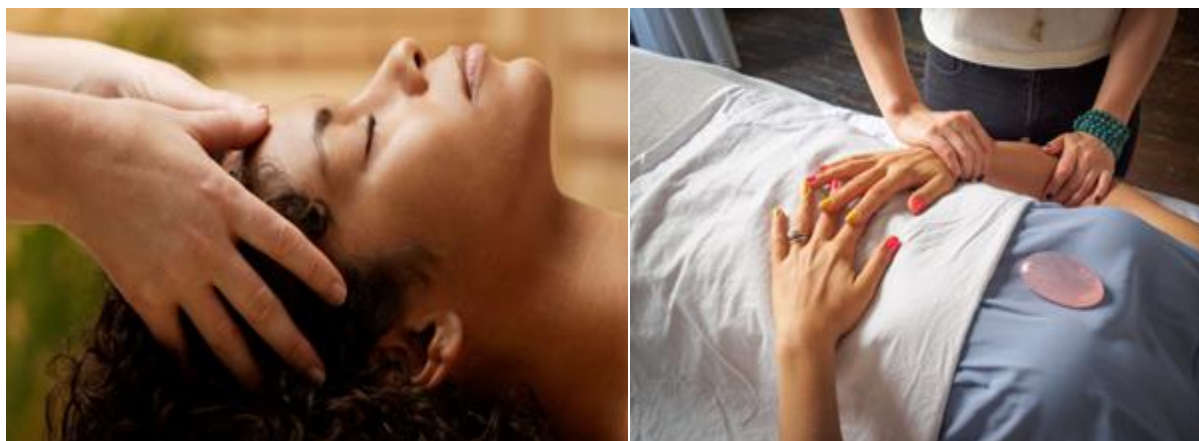
Exit survey. We developed an exit survey with short answer and simple yes-no questions to reflect participants experience of HT. Participants received and completed a Google email survey upon completion of HT sessions. Questions included: 1) Please share your experience of HT in this study with us. 2) How did you feel on days you received HT? 3) Was the HT useful? And, 4) How did receiving HT affect your stress level at work? There is no reliability or validity since we developed the questions. Strengths of the survey are the ease of delivery and simplicity to fill out. Limitations of the survey include participant willingness to complete the survey, questions that may not accurately reflect the experiences, and no room for explanation of variables that participants encountered.

Noel's Mind Clearing and Chakra Connection. HTPs performed Noel's Mind Clearing and Chakra Connection on participants for every session, taking approximately 30-45 minutes. Noel's Mind Clearing includes twelve hand positions around the head and face. Noel's Mind Clearing was originally developed by Bruyere, an internationally acclaimed healer, who named it *Brain Balancing* (Burdick, 2015). Bruyere taught the technique to Rev. Noel, who later modified and renamed it *Mind Clearing* (Burdick, 2015). Finally, Healing Beyond Borders (2017) renamed the technique *Noel's Mind Clearing* after separating from the Healing Touch program. We chose Noel's Mind Clearing because of its' focus on calming and deep relaxation. Anderson, Anselme, and Hart (2017) define Noel's mind clearing as "a technique

applied to the head that stimulates the parasympathetic nervous system resulting in calming and deep relaxation” (p. 82). In addition, Noel’s Mind Clearing technique facilitates clarity and helps with a number of problems including stress and blood pressure reduction, decision making, test preparation, and public speaking (Anderson et al., 2017).

The Healing Beyond Borders student textbook describes the Chakra Connection as consisting of 15 hand positions from toe to head, designed to open the chakras and promote a balanced energy flow (2017, p. 58-59). Dr. Joy named this technique in 1979, describing it in the book, *Joy’s way: A map for the transformational journey*. Anderson et al. (2017) note that the Chakra Connection promotes post-traumatic healing (chemotherapy, fractures or surgery) and helps one to face life challenges (graduation, death, etc). Hover-Kramer’s (2009) work with HT echoes the comments of Anderson et al. (2017) further stating that Chakra Connection balances and energizes the entire being. Other than client/patient comments we were not able to identify a way to determine the reliability, validity, strengths or limitations of either Noels Mind Clearing or Chakra Connection.

The image on the left displays a HTP’s position of Noel’s Mind Clearing. The image on the right shows a HTP performing Chakra Connection on the arm of a woman.



Images courtesy of <http://alignnewyork.com/healing-touch-reiki/> AND <http://mdholistichealthcenter.com/healing-touch-energy-therapy/>

Data Collection

This section describes our data collection processes.

Healing Touch Practitioners, setting, and participants. We met with the Healing Touch Practitioners (HTPs) as a group, or individually (for those who could not make the meeting) in the hospital lobby before the start of the HT sessions for an orientation meeting. This meeting provided time to explain the study in detail, give a tour of the healing space, and answer questions. We gave a handout describing the HT techniques and guidelines for the study to each HTP. HTPs provided available days and times and designated the number of participants they wished to work on during the study. All HTPs read, signed and submitted a confidentiality agreement provided by the hospital and registered with RepTrax, a volunteer tracking tool used by the hospital.

The hospital provided a private healing space for us to use for the study. The healing room had a padded massage table, sheets, dim lighting, a desk, and two chairs. Participants were required to receive the sessions before their shift. One of the researchers met with each participant and HTP before their first session in the designated healing room to answer any research-related questions, sign the consent forms (one for the participant and one for the research team), review the journal and Stress Thermometer, and have them fill out the DASS-21. All participants received copies of the documents prior to scheduling their first session; researchers stayed with the participants while they completed the documents and collected them prior to the start of the session. Researchers gave participants instructions on completing their journal and stress thermometer at the end of their shift. We also gave all participants a Mental Health Resource list (Appendix L).

After the required paperwork was complete, the HTP invited the participant to lie fully clothed on a massage table. HTPs then took the blood pressures on the participant's left arm and recorded it prior to each session. The researcher left the room, and the only two people in the room were the participant and the HTP. The HTP then asked permission to use gentle touch or hands above the body. The interventions consisted of approximately 10 minutes of Noel's Mind Clearing and approximately 20 minutes of Chakra Connection. Following the session, while the participant was still lying down, the HTP rechecked and recorded the nurse's BP.

The goal for each participant was to complete four sessions, which 8 of the participants did. However, due to scheduling difficulty, illness, weather-related road conditions, and forgetfulness, 3 of the participants only completed three sessions. Following the final session of the study, participants completed a second DASS-21. They returned their completed journal, blood pressure chart, stress thermometer, and DASS-21 in a pre-stamped, addressed envelope. After we received their data, we emailed participants the google link to the exit questionnaire.

As stated in the recruitment flyers, each participant received a \$5 gift card once their materials were returned. After all study materials were returned, two participants were randomly drawn and received \$25 gift cards to Target.

Data Analysis

In this section, we discuss data analysis. We gathered data pre-HT and post-HT sessions to assess whether participants reported a change in their stress level. We first describe the quantitative data analysis for the intake survey, DASS-21, Stress Thermometer, and Blood Pressures. We then follow with a description of the qualitative data analysis of the open-ended journals entries and exit surveys.

Quantitative data analysis. To prepare our data we created a codebook in Google Sheets that lists the variables by name and format (i.e., test, measurement). We entered, stored, and visually inspected the data for errors or anomalies. Both researchers checked each other's data entry for errors. We then ran descriptive statistics (mean, median and mode) to analyze demographic data such as gender, age, years as a nurse, and HT experience; and the differences in scores of the BP's, Stress Thermometer, and DASS-21 from pre-intervention to post-intervention. We used inferential statistics to run a one-tailed t-test and ANOVA to determine whether or not we accept or reject our hypothesis: HT reduces the stress levels of hospital nurses.

Qualitative data analysis. We chose thematic data analysis over content data analysis due to its' focus on rich qualitative descriptions of data. Thematic analysis frames a more holistic study because it focuses on going beyond counting certain words in a text to identifying unique ideas within the data (Guest et al., 2011).

In thematic analysis, researchers use coding to provide explanations to help connect contents, or themes (Guest, MacQueen, & Namey, 2012). Miles et al. (2014) describe codes as "labels that assign symbolic meaning to the descriptive or inferential information compiled during a study" (p. 71). We fully immersed ourselves in the data and read the hard copies of the journals and exit surveys individually. We individually identified preliminary codes that appeared interesting and meaningful and jotted them down on colored post-it notes.

Next, we then read them together and started organizing our codes. We then sorted the preliminary codes and discarded those that did not coincide with the others. We wrote themes on large post-it notes and pasted them on poster board to form a 'picture' of the data, seeking

relationships between themes and sub-themes, thus creating a thematic map (Grbich, 2013). In the next section, we discuss ethical considerations.

Ethical Considerations

We conducted our research on human subjects and acknowledged that ethical considerations are crucial for safety and fair treatment. Before the study, each researcher completed the Social Behavioral Education course in the Collaborative Institutional Training Initiative (CITI) program. We obtained permission from hospital administrators to utilize their facility and nurses for our study. We then submitted a research study application to the hospital Internal Review Board (IRB) and the University IRB requesting approval to conduct research involving human subjects. Both the hospital and the University approved our research and we began recruiting participants. Creswell (2014) states “respect the site and disrupt as little as possible” (p. 97). We left the therapy room in the condition in which we found it and ensured that we did not interrupt the hospital staff while walking to and from the location. Our ethical considerations included; a) informed consent, b) safety, c) confidentiality, and d) coercion.

Informed consent. Informed consent is an important aspect of research involving human subjects. Informed consent forms communicate details of the study such as benefits, safety, confidentiality, the option to withdraw at any time, and acknowledge human rights (Creswell, 2014). We emailed interested participants an informational email with a detailed description of HT, time parameters, and participation requirements. Only those interested in the study responded to the email. Individuals who chose to participate read the consent form, asked questions as needed, and signed it of their own volition at the beginning of their first HT session. We informed participants that they were free to drop out at any time without any consequence. We provided clear facts on the informed consent form that sessions would be

before work shifts and would take 30-45 minutes. By disclosing this information, we made our expectations explicit and communicated the time necessary for the research.

Safety. The informed consent also noted potential risks of the study. There was a small risk of physical harm while getting on and off the therapy table. As a safety precaution, HTPs assisted participants in slowly sitting up at session end as dizziness could occur if they rose too quickly. No one reported injuries related to the study.

Confidentiality. Confidentiality is an integral part of research ethics and assures that all personal information will be kept private and not disclosed to anyone. To ensure confidentiality we secured all personal information (names, email address and phone numbers) on a password-protected computer in a locked office, limiting the possibility of computer data breach. Then each participant's data was de-identified by a code and participants kept their journals until the end of the study (Rallis & Rossman, 2012). Finally, to further safeguard privacy, all HTPs signed a confidentiality agreement with the hospital. Additionally, HTPs used a private, locked room close to the elevator for the therapy sessions at the hospital so that participants could easily come and go from the study without being noticed by other hospital employees. We reminded participants that they were not to discuss who participated in the program with anyone.

Once the research study finished, we kept all information; journals, DASS-21 forms, Stress Thermometers, blood pressure readings, and personal data in a locked file cabinet, inside a locked office. We destroyed all identifiable data by May 31, 2018. We will keep de-identified data indefinitely.

Coercion. As researchers, we did several things to avoid coercion. First, we did not speak to prospective participants before the study. However, it is possible that our staff contacts and participants persuaded others into joining the study. Second, we offered \$5 gift cards at the

end of the study; however, due to the nominal amount of the gift card, it is unlikely that this was coercive. Third, to avoid coercion, we did not select the winners of the two \$25 gift cards to Target until the study was completed and all data had been collected.

Next, we detail how we ensured design rigor, reliability, and validity.

Design Rigor, Reliability, and Validity

We took multiple measures to ensure the rigor, reliability, and validity of our study for data collections and analysis. Taking our paradigms into consideration, we reviewed Hesse-Biber's (2010) chapter on Design, Analysis, Interpretation, Write Up, Validity in *Mixed Methods Research* to determine the best forms of analysis to maintain objectivity.

Rigor. To ensure rigor, we held a meeting with the HTPs before the start of the study to review the HT techniques and data collection steps. We also typed up guidelines for them to follow during the HT sessions. We met with participants individually at their initial session to explain the steps and data collection procedures, answer their questions, and have them sign the informed consent form. When HTPs asked if they could modify or add HT techniques, we reminded them of the study guidelines and that they were to be followed exactly. Furthermore, nurses scheduled sessions on non-work days so we had to remind them to schedule their sessions prior to work.

In our data collection, we opted to include only those participants who completed 3 or 4 sessions. Our reasoning was that the data from 3 or 4 sessions might show a stronger picture of the results, especially the DASS-21.

We demonstrate rigor in our data collection and analysis by being fully honest and accountable and documenting and maximizing internal validity through the minimization of systematic errors and external validity through the avoidance of generalizations (Tashakkori &

Teddle, 2003). Together we checked our procedures for data collection to determine whether or not they would run smoothly. We utilized face-to-face meetings (with minutes), email communications and telephone calls with our HTPs and participants to clarify points when concerns occurred.

Reliability. Reliability is important for credible, well-designed studies. Reliable, well-designed studies connect what is studied to how it is studied, by taking a step by step approach to ensure the design is replicable (Rallis & Rossman, 2012). To ensure reliability, we took detailed notes of the study process and any changes that were made during the study. Our method chapter describes in detail the steps taken to implement and complete the study. To be fully transparent of our biases, we included a lenses chapter explaining our personal viewpoints and the efforts we used to minimize our influence on the study and its' participants. We had minimal contact with the participants and HTPs' other than to collect data, thus maintaining our role of objective observers. Additionally, we reviewed each other's writing, offered suggestions, and re-wrote together to confirm the reliability of our work and resources.

Validity. Validity strategies we included are a triangulation of different data sources, clarifying our bias, providing contradictory information that challenges the theme (Creswell, 2014) and by using in-class peer review to gain the perspectives of others. There are many ways to measure stress, some being objective (BP, HR) and some subjective (personal experience) which differs from person to person. Comparing the same concept of stress with qualitative data (journaling) and quantitative data (BP, questionnaires) provided us with more validity.

As Creswell (2014) suggests, participants may have been chosen based on certain attributes that make them more prone to certain outcomes. In this study, a threat to internal validity is that nurses may be more open to HT than other professions. Moreover, it is possible

that nurses with previous exposure to HT are more receptive to it. We portray the words the participant's used in their journals to understand their thinking and avoid using our views, thus increasing validity (Tashakkori & Teddlie, 2003).

Limitations

As with any research, our study has limitations including 1) quasi-experimental design, 2) convenience sample, 3) sample size, 4) instruments, 5) communications, 6) timeframe, and 7) novice researchers. We acknowledge that our lenses and bias' influence not only our choice of study and design but the methods and results as well.

Quasi-experimental designs lack control groups or random assignment thus confounding variables affecting the outcome unrelated to the treatment occur (Edmonds & Kennedy, 2013). Because we did not have a control group, we are only able to compare participants with their beginning and ending stress scores.

Additionally, multiple variables could affect stress scores including emergencies, weather, miscommunication, unexpected crises on the job (codes and heavier patient loads), interpersonal relationships on the job and at home, and depression. Using a tool that is inclusive of outside factors may prove a higher threshold of reliability. Additionally, the use of a control group could help determine how outside factors impact stress scores.

Convenience sampling may bias the study results. Because of our convenience sample, nurses who were already interested in HT or who wanted time for relaxation may have signed up for the study. In addition, with convenience sampling, we are unable to generalize the outcomes with the rest of the nursing population (Edmonds & Kennedy, 2013). To eliminate this particular problem the best practice in a future study would include 2 randomly selected groups.

Our small sample size (n=11) made it challenging to collect statistically significant data as the standard deviations are broader than the variations encountered in larger samples (Bentz & Shapiro, 1998; Rumsey, 2011). In addition, generalizations are difficult to make with small samples. Creswell (2014) states data is statistically, "...significant if the results are unlikely by chance to have occurred..." (p. 165). In order to avoid this problem in the future, the study would benefit from larger sample sizes.

Our instruments also limit our results. Nurse's stress levels vary based on the events during their shift, personal/life experiences, and interactions with other staff and our instruments do not account for these variables. Additionally, the commitment for participants to schedule the sessions and come in early for work may have caused more stress, not accounted for in the data. Our instruments did not include a way for nurses to account for stressors outside work days that influenced their stress levels. Future studies can address this by including additional questions, tools, or space in the journal to document outside stressors every day of the week, not just HT days, as well as including stress ratings on the days that they do not receive HT.

Communication became complicated due to the number of individuals involved (HTPs, participants, and researchers) and their schedules (HT sessions and shift work). HTPs were frustrated when participants did not show up for their sessions because of illness, scheduling, or weather-related problems and didn't let the HTPs know in advance. Initially, we used both emails and text messages, however, it was not possible for everyone to answer them in a timely fashion. While we anticipated that communication issues would happen, we realized that perhaps phone calls might have worked better. We had phone numbers for our participants and HTPs and encouraged them to exchange that information with each other. We highly recommend the use of phone contact in future studies.

Another limitation was the timeframe for our study. We conducted the study in an academic environment and had to complete data collection and analysis in one semester. We began recruitment on January 2nd, 2018 and completed data collection March 1st. The study length limited the timeframe for completion, and our ability to ensure that all participants were able to meet the criteria of three to four HT sessions, thus creating dropouts.

Finally, one last limitation is that we are novice researchers. As novices, we revisited a number of resources, sought aid from others and reimaged our study a number of times. There were many edits, changes, and trials and errors throughout the design, research, and data processes that expanded our knowledge base. As researchers we determined that there are several ways that we would do things differently: 1) use phone communications, as well as email communications with participants and HTPs, 2) we would use a scheduling application to arrange HT sessions (we found out that using a calendar did not work for everyone), 3) as researchers we would follow-up with participants who missed a session to reschedule, 4) we would open the study up to include doctors and other health care providers (to increase sample size), 5) we would have a locked dropbox available for the participants to place their completed journals and paperwork at the end of the study to make it more convenient for them and us, and 6) we would find ways to lessen the interruptions from outside noise sources. Though we are novice researchers and new to the research process, we take credit for the fact that our study was well-designed and implemented within a short time frame. We are proud that we offered this study to the nursing population.

In the next chapter, we discuss the results of our research.

Results

The purpose of this chapter is to report the findings of our quasi-experimental pilot study, that answers the question: “What is the impact of Healing Touch on stress levels in hospital nurses?” We begin with a description of the participants followed by our observational data and quantitative data. We conclude with the results of the qualitative themes.

Description of Participants

Eleven registered nurses who work in a Midwestern urban hospital completed the study. All participants are female, ages 22-65, and have worked as a nurse for an average of 14.5 years. Of the eleven participants (n=11), 7 (63.6%) had experienced Healing Touch (HT) prior to the study, and 4 (36.4%) had no prior experience of HT. Eight participants (72.7%) completed the intended number of 4 sessions, and 3 participants (27.3%) completed 3 sessions. We did not collect a large amount of demographic data because we did not have a control group and we did not anticipate a large sample size.

Observational Data

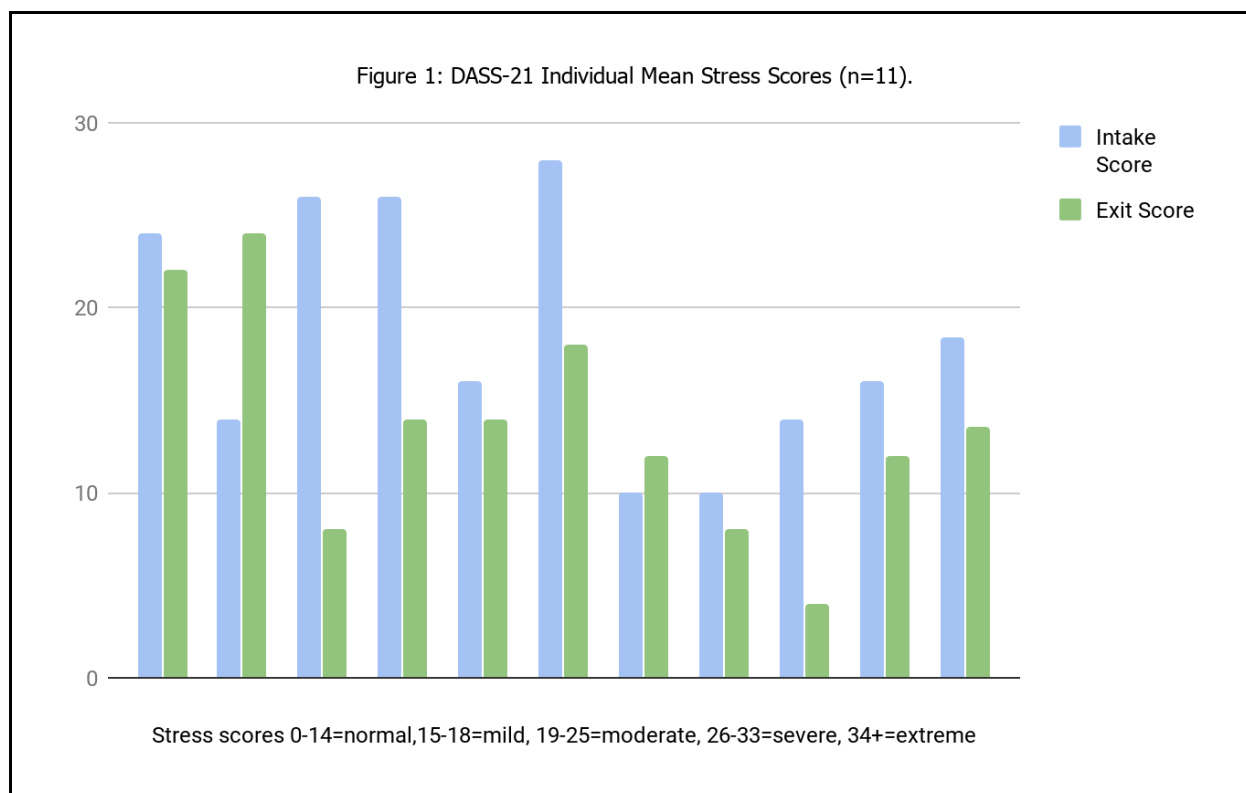
We encountered anecdotal data that we did not expect. Prior to the first HT session, one nurse explained to one of the researchers that this study was just what she needed. She said that she had a lot of personal stress and worked as a nurse manager which was also stressful, so she believed it was important to care for herself to set an example for her staff nurses. After completing the initial DASS-21, one nurse commented that she felt it did not apply to her life/work situation. She mentioned that her life is extremely stressful with work, family, and a graduate program she is working on completing. We encountered another participant in the hall who stopped us and stated that after her HT session the day before, she found herself humming and smiling when stressful moments occurred. Her response was “I never hum or sing because I

am off-key.” We also observed some participants rushing to make it to their HT session. Upon leaving the session for work, one participant walked off with the researcher's winter coat that hung on the back of the same chair as hers. When she returned ten minutes later, she stated she was really relaxed and did not notice taking the coat.

Quantitative Data

We utilized three quantitative instruments to measure stress levels: DASS-21 questionnaire, blood pressure measurement, and a Stress Thermometer. Our primary hypothesis is that HT reduces stress levels in hospital nurses. Our null hypothesis is that HT makes no difference in stress levels. Next, we describe each instrument and their statistical analysis, and whether the data supports or rejects our hypothesis.

DASS-21 t-test results. Participants completed two DASS-21 questionnaires; one before their first HT session and one after their final HT session. We hypothesized that DASS-21 scores would decrease after the 4 sessions of HT over a 4-6-week period. There was a statistically significant difference in the pre-test ($M=18.4$, $SD=6.56$) post-test ($M=13.6$, $SD=5.98$) DASS-21 scores, $t(9)=4.80$, $p < 0.0005$. Figure 1 shows individual calculated stress scores for the DASS-21. Therefore, we accept our hypothesis that DASS-21 scores decrease after the HT intervention period.

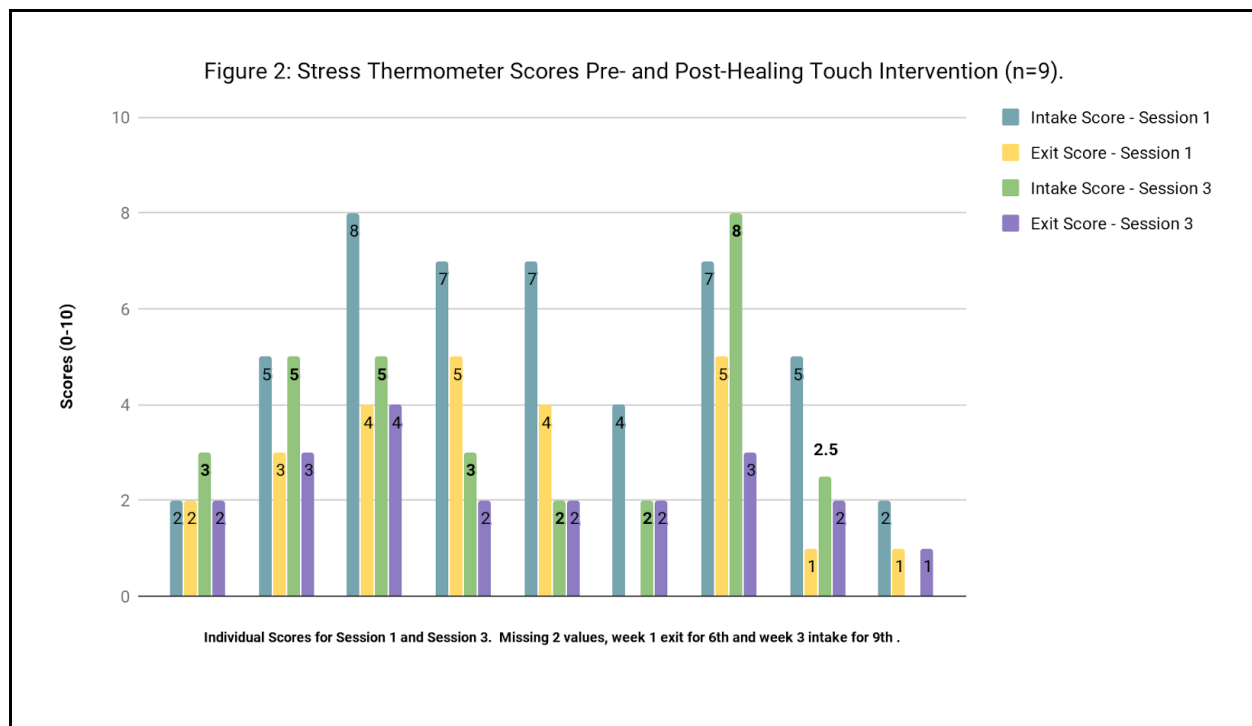


Blood pressure measurement. We measured blood pressures pre- and post-HT every session. We compared the session 1 results to those of session 3, as all participants completed 3 sessions, but not all completed 4 sessions. Table 1 displays readings and differences.

Many BP's were higher after the HT sessions, and the small changes do not support our hypothesis that HT sessions reduce BP.

Chart #1 - BP chart								
Participant #	Week 1 – intake systolic	Week 1 – before diastolic	Week 1 – before systolic	Week 1 – after systolic	Week 3 before systolic	Week 3 before diastolic	Week 3 after systolic	Week 3 after systolic
1	112	70	108	69	119	74	111	81
2	95	71	106	78	123	92	121	83
3	99	71	105	64	n/a	n/a	121	67
5	135	84	132	91	121	85	136	90
6	127	89	125	84	127	84	136	82
7	105	73	106	73	106	65	99	68
8	101	79	105	71	118	77	108	72
9	113	68	114	67	124	77	108	97
10	93	64	93	69	104	73	99	69
13	112	88	124	90	130	95	116	91
14	103	66	112	75	115	66	106	65
mean	108.64	74.82	111.82	75.55	118.70	78.80	114.64	78.64
mode	112	71	106	69	#N/A	77	121	#N/A
median	105	71	108	73	121	77	113.5	81.5

Stress thermometer. Participants rated their stress level pre-HT intervention and then again after their shift that day. We hypothesized that stress level scores would decrease at the end of their shifts due to having received HT before the shift. Session 1 (S1) pre- and post-HT intervention combined mean stress scores were $M=5.22$ pre-HT and $M=2.78$ post-HT. There was a significant difference in scores: $t(8) = 2.44$, $p < 0.02$. Session 3 (S3) pre- and post-HT intervention combined mean stress scores were $M=3.39$ and $M=2.33$ respectively, with a $t(8) = 1.48$, $p < 0.07$. The end of day stress scores supports our hypothesis that HT reduces stress levels in hospital nurses, but it is not statistically significant. Figure 2 shows individualized stress scores for sessions 1 and 3.



Qualitative Data

In this section, we discuss the emergent themes presented in the qualitative data. Note: we expected short written responses in the journals and were surprised by the length of some responses. Three themes emerged from the data: Stress relief, calmness, and centered mindfulness.

Stress relief. Stress relief was a recurrent theme among all participants. Stress relief was the key issue for those who chose to participate in this study. Other participants mentioned stress levels in comments written throughout the journals.

One participant mentioned in her journal:

[work] normally causes me to have anxiety, lose sleep and just not function well.

Another participant described stress issues:

"My day was stressed. Pressure from a co-worker and we were not in agreement on the issue."

While HT worked at the beginning of the day after a session, work-related stressors overrode the HT benefits during the shift for a few nurses.

At the end of the shift, a participant summed up that day's experience with HT sadly:

Feelings of gentleness, calmness and peace evaporated. Too bad.

When answering the journal question "What impact did HT have on your stress and anxiety level as a hospital nurse?" a participant highlighted her stress level :

Unfortunately, none. This was one of the top 20 WORST shifts of my career. We were all struggling-too many surgical-post procedure [patients] arriving too close together, high acuity. I was in TEARS 3 times, would have like to have walked out. An RN doesn't have that option-your ANS may be activated-fight or flight? We only have the option to stay & fight in spite of wanting to flee! The day I leave I won't be coming back.

Uncertain if HT was helpful or not a participant answered the question on HT impact by saying:

Unsure. After the last, horrible shift I came in stressed. This shift was so much more manageable (after HT) - less acuity, not as much in and out with discharges and admits. I had a good shift. Healing Touch relaxed me, and I didn't get wound up again.

HT provided stress relief, even at times when the effects of HT did not last all day.

Though in some instances participants felt they did not notice much difference throughout the day, they did note that initially, their days began with less stress. All participants did report positive responses to the HT sessions throughout the study. HT provided relief throughout the day for most as supported by journal entries.

After a first session a participant stated:

As after the first HT session, I seemed to have a deeper sense of calm throughout the workday (equaling a lower overall feeling of less stress).

Responding to the question "What impact did HT have on your stress and anxiety levels as a hospital nurse", a participant responded:

I'm still as busy as before, which would normally cause me to have significant anxiety, lose sleep and just not function well, but I'm more calm and I feel like I'm adapting and just going with the flow easier than before.

Answering that same question, one wrote:

Today was going to be a very busy & fast paced day, but I did feel calm throughout the day.

Another participant expressed her decreased feeling of stress as:

I felt more confident in my ability to fight off stress going into the shift, but ultimately did not feel this shift was different from others.

Under their personal reflections a participant wrote:

Overall this past month I noticed that I am handling stressful situations better. For example, after 3 weeks of Healing Touch I had a terrible day. One major personal family situation occurred that was extremely troubling to me, I was told I may not have a job, and when I got home late from work I was told my wedding venue was not going to work anymore. I noticed my heart rate increased throughout the day, but I was able to calmly accept each of these situations. My family noted that I wasn't reacting the way I normally do. I didn't have an anxiety attack - I just accepted each of the terrible things and worked through them. Without this Healing Touch experience, I don't think I would have reacted and processed through each of these situations in the way I did. I believed it helped me! And feel grateful for this experience.

The stress reduction experiences mentioned by participants are positive in nature. Next, we look at calmness as a theme.

Calmness. All participants noted that they felt a sense of calmness, along with relaxation during their HT sessions. In several cases nurses stated that this sense of calmness carried over into their work day and for a couple of days afterwards.

One participant stated:

I felt the hectic energy around me but did not feel like I was a part of it. I felt better equipped to be a healing presence for my patients.

A second participant agreed and expressed the feeling as:

I felt much calmer throughout the day overall. I did feel that things that would normally stress me out right away did not impact me as they normally would.

This participant referred to a shift and wrote:

It gives me a little time to relax and start the shift with an open mind that I will be ok.

Note the perception of calm in this response:

I didn't start the day with much stress, Maybe like a 1! I had been gone for a week and had a lot to catch up on and I guess I'm leaving with a low stress level as well. Hmm... Healing Touch calming the day?? Pretty sure it did.

Finally, a participant shared a reaction to having HT by saying:

It was awesome! I feel so relaxed but energized at the same time. I felt as if I could feel the energy moving through my body during the session. It is just a beautiful way to start the day. Having this level of relaxation prior to the start of a busy, hectic shift puts me in a place to practice nursing calmly and respond to stressful situations rather than react.

Participants generally commented on feeling more in control of their feelings and having an inner calm that stayed with them:

I felt good and positive all day and the next morning I felt so peaceful and unencumbered.

Some participants found it easier to go with the flow, rather than worrying about everything. Still others mentioned an increased sense of confidence in their ability to deal with others and job duties.

However, there were times during the study cycle that some participants noted that HT wasn't as helpful:

I felt like my threshold for feeling frustrated was higher.

Regarding her experience on one day, a participant stated:

However, I ultimately became stressed on the unit at similar stress-inducing times /incidents.

Based on the Stress Thermometer scores before and after each shift, the DASS-21 scores before and after the study, and participant journal entries answering the question "How did HT

impact your stress and anxiety levels as a hospital nurse?” The examples illustrate the calming effects of HT on stress levels in nurses before their shift begins and at the end of their shifts. We now describe the third theme, centered mindfulness.

Centered mindfulness. Participants expressed their feelings of being centered and mindful of their ability to hold space from stress. The majority reported that the feeling of centeredness, along with mindfulness lasted throughout the shift and extended into communications with co-workers and patients.

A participant commented that the task was smoother:

I was able to finish tasks quickly and successfully. Everything just seemed to fall into place.

Noting how HT centered the day a participant wrote:

I felt much more centered throughout my shift. I felt more grounded and energized, like I had gotten enough sleep and could think straight and be cheerful.

At the end of a shift a participant penned the belief that HT was centering:

I believe beginning my shift from a centered/grounded space has allowed me to not get swept up in the "craziness" that this floor often is. Today, I could almost feel the hectic energy around me, but I did not feel like I was part of it. Because of that I felt like I was better equipped to be a healing presence for my patients.

Thoughts from a participant noted increased awareness of stress levels:

I was more aware of stress-inducing situations and was more mindful of how that stress was affecting my body.

A feeling of centered mindfulness is important in stress reduction, as demonstrated by the comments mentioned above. In the following section, we discuss the interpretation of our results and offer our conclusion.

Discussion

The purpose of this chapter is to interpret the results of our research. The objective of our pilot study was to describe the effects of Healing Touch (HT) on stress levels in hospital nurses. First, we address the findings that are supported by the literature. Second, we discuss the unexpected findings and outside variables that affected our results. We then present the implications of this study as they pertain to the nursing community, holistic health, and future research. Lastly, we end with a brief conclusion.

Findings supported by literature

Our finding that HT reduces stress is consistent with the literature (Black et al., 2014; Coakley, 2015; Healing Beyond Borders, 2017; Krieger et al., 1979; McElligott et al., 2003; Pierce, 2007; Stern, 2012; Straneva, 2000). While Coakley (2015), McElligott et al. (2003), and Stern (2012) focused their study on student nurses and ours focused on hospital nurses, both conclude that HT reduces stress.

Hospital nurses reported high amounts of stress in both our quantitative and qualitative data corresponding with studies that state the stressful nature of hospital nursing results in higher rates of stress and anxiety than other professions (CDC, 2008; Kovner et al., 2014; McIntosh & Sheppy, 2013; Mealer et al., 2009; Milliken et al., 2007; Minority Nurse, 2016; Oyeleye et al., 2013; Sarafis et al., 2016; and Toh et al., 2012).

Previous studies show a high level of musculoskeletal problems and injuries within the nursing profession (CDC, 2008; Nowrouzi et al., 2015) and that occupational stress also affects a nurse's quality of life (Nowrouzi et al., 2015; Sarafis et al., 2016). Some nurses in our study reported to their HTPs' and in their journals that they had pain and discomfort and that the HT helped relieve it.

Our DASS-21 scores were statistically significant and consistent with previous studies including Jain et al. (2012), MacIntyre et al. (2008), and Maville et al. (2008) who report decreases in anxiety scores, cynicism, and increases in quality of life after HT. The decrease in scores shows promise for further integration of HT programs for nurses as well as other professions. Furthermore, the lowered DASS-21 scores indicate that further study on the effects of HT on stress levels in hospital nurses is warranted.

In the nursing profession most days are highly charged and stressful (patient populations fluctuate, emergencies occur, understaffed) their journal comments reflect this stress (Ayon et al., 2014; Chang & Chan, 2013; King, 2005; McDonald et al., 2007; McIntosh & Sheppy, 2013; Milliken et al., 2007; Missouridou, 2017; Nowrouzi et al., 2015; Rushton et al., 2015; Sarafis et al., 2016). Our qualitative findings of stress relief, calmness, and centered mindfulness are similar to HT study results noted by Black et al. (2014); Field (2014); Hines et al. (2015); McElligott et al. (2003); Pierce (2007); Straneva (2000); and Wardell et al. (2014). Participants reported feeling more mindful and centered, and able to not let the demands of patient care irritate them. These findings coincide with Oyeleye et al. (2013) who state that addressing the stress levels and health and well-being of nurses decreases stress and increases mindfulness, with the potential for positively affecting patient care.

Participants' commitment to HT sessions provided time for self-care, respite, and relaxation. Though not directly related to our research question, a number of participants wrote about how they valued the time for self-care. Several nurses commented on feeling grateful and pleased that they took the time for self-care and the literature supports the empowerment that self-care provides for nurses (Ayon et al., 2014; Black et al., 2014; McElligott et al., 2003).

Next, we discuss the unexpected findings and their influences on the research.

Unanticipated Findings

We expected BP measurements to decrease after HT sessions. However, our mean combined systolic blood pressure (SBP) scores only decreased slightly in 3 out of the 4 sessions, and diastolic blood pressure (DBP) scores barely differed. Our overall measurements were not consistent with Maville et al. (2008) findings that resulted in decreases in SBP after HT. One possibility is that the thought of having to get up from laying down in a relaxed state and go to work, and anticipating or dreading the shift may have influenced or increased participant's BP after the session.

Confounding Variables

As novice researchers, we acknowledge outside influences that affected our results as there were a number of variables we did not consider beforehand.

Confounding variables unrelated to the HT sessions could have affected the decrease in DASS-21 scores. Participants filled out the first pre-intervention DASS-21 immediately before their first HT session. The stress of coming in early for the session, finding a new room in the hospital, and meeting new people (researcher and HTP) could have influenced the score on the DASS-21 stress survey. Additionally, life events, poor weather, illness, children and families all contribute to an individual's stress level, and the DASS-21 did not account for those.

One variable we had not considered was that some HTPs used music or nature sounds in the background. It is possible that laying down listening to soft music/nature sounds was enough on its' own to reduce stress levels for a few individuals. Also, the time set aside to lie down in a quiet room in a healing environment before work could be relaxing in itself. Without a control group, it is difficult to know if the HT intervention impacted the results or if the combination of HT, music, having a quiet time to lie down and relax or a combination of the three.

Another influence was the extra noise in the hall from people coming to and from work, and a clicking sound in the ceiling that affected participants ability to relax. One participant wrote in her journal that the noise level in the hallways was disruptive, while another wrote that she was worried about staff needing her help, as the noise indicated patient and staff needs. The noise could increase stress levels and interfere with the scores. In future iterations of this study, the room used for HT should be away from patient rooms in a quiet location (Applebaum et al., 2010).

Stress Thermometer scores decreased between pre- and post-intervention. A few participants mentioned that having the sessions before their shifts were stressful. Moreover, in some cases coming in early and anticipating their shift as being stressful before it even started increased stress. Participants may have scored low on the Stress Thermometer after work because they were relieved their shift was over. While reviewing our results, we realized the Stress Thermometer score prior to work was irrelevant and that we should have asked for scores on non-HT days after work, and compared them to days with HT.

In the next section, we discuss the implications of our research.

Implications

As a pilot study, our research did not generate results that are generalizable to hospital nurses due to both a convenience sample and the small sample size. However, the purpose of a pilot study is to demonstrate the need for further research. To our knowledge, our study was the first study done on HT and nurses. Our results are promising and have many implications. In this section, we look at the implications as they affect the nursing community, the holistic health community, and future research.

Implications for the nursing community. Nurse's high-stress levels caused by patient acuity, job demands, the demand for flexibility, and occupational hazards contribute to health issues including stress and anxiety (Chang & Chan, 2013; Milliken et al., 2007; Oyeleye et al., 2013; Sarafis et al., 2016; Wright, 2014). It is difficult for hospitals to incorporate inexpensive and time-sensitive methods to relieve stress for nurses. Interventions for nurses must address on the job stress levels. By offering self-care programs on site during the workday, hospital administrators are demonstrating how much they value the nurses and their contributions to the work environment. Hospital self-care programs need to be communicated (by emails, posters, meetings), accessible for all shifts, and easy for nurses to access around their schedule (Hanson, Lukas, Merchlewitz, Rice, Robicheau, & Ulvestad, 2017). As noted in other studies (Ayon 2014; Hanson et al., 2017; Krieger, 1979; Markwell et al., 2016; Pierce, 2007; and Williams, Simmons, & Tanabe, 2015) interventions of a holistic nature such as coloring, meditation, HT, and self-care ease stress levels and provide tools for resilience. Adding opportunities such as HT during or after a shift provides support and tools to help nurses relax, cope, and ultimately decreases stress.

HT is a form of self-care that is beneficial to the nursing community. Participants noted in their journals that by having a sacred, peaceful space available for HT sessions, they were able to relax and appreciated the designated time for self-care. Participants in our study reported that they began their shift with calmness and clarity after receiving HT. Although some nurses expressed normal stress levels as the day progressed, overall, HT prior to work increased calmness, added a feeling of centered mindfulness, and reduced stress levels. As our results noted, a number of nurses reported they were less reactive to patient and job demands and more interactive, maintaining their equilibrium with greater ease. In addition, reduced stress levels

resulting from HT sessions had carryover value into daily living situations, and occasionally the next day. As researchers, we believe that studying the carry-over phenomenon is worth studying in future research.

Implications for holistic health. As researchers, we embody the mission of St. Catherine University by intellectually pursuing a research inquiry that is beneficial to others, promotes new ideas, new perspectives in healthcare, and promotes leadership in the holistic community. Our results support that HT decreases stress levels and creates positive effects in nurses just as it did in patients as shown in other HT studies. HT as a modality for patients has gained popularity over the past 5-10 years due to the number of studies that involved patients (especially stress and cardiac patients). Our results demonstrate that HT holds promise in reducing stress in hospital nurses. With the introduction of HT for nurses to relieve job stress and the positive reviews nurses give HT, hospitals have greater incentive to incorporate it into the allopathic medical model for patients and staff alike.

Implications for future research. We based our quasi-experimental pilot study on an empirical culture of inquiry (COI) with a post-positivist paradigm. It is possible that another COI would provide different results, such as a positivist paradigm relying solely on measurable results, or a constructivist COI where the results include only personal journal entries. This study is easily replicated with slight modifications based on our experiences.

We conducted this pilot study as graduate students with a limited budget and few resources. We suggest that the study time be extended to 3-6 months for the results to be substantially significant. A larger sample size with a control group and possibly including more than one hospital would give results greater meaning. Increasing the number of HT sessions to a

minimum of 6 per participant, reducing the number of questions in the journal, and eliminating the exit survey would reduce repetitive questions on qualitative instruments.

Long-term interventions may be more effective in reducing blood pressure compared to a short-term HT session. For future studies, taking an initial blood pressure prior to the intervention and then a final blood pressure at the end may be more appropriate. Also, making a note of other factors in participants lives that affect their blood pressure such as medications, stressors outside the workplace, family issues or illnesses would provide more information. Incorporating a form of physiological measurements such as salivary cortisol (Pires Da Rocha, Figueiredo De Martino, Grassi-Kassisse, & Luiz de Souza, 2013) or heart rate variability may increase rigor/validity and gain approval/acceptance from the medical community. In a research study on nurses completed by Pires Da Rocha et al. (2013) cortisol levels were lower in nurses when they were not working, and higher on work days. Additionally, the study showed that there is a gender difference in cortisol levels, with female nurses having higher levels than males (Pires Da Rocha et al., 2013). Furthermore, we determined that having participants do Stress Thermometers 7 days a week would provide a broader picture and definition of the results. The journals could be limited to one question - How did HT impact you the day of the session, and during the week between sessions. Our research findings demonstrate that offering HT as a stress reduction strategy for nurses is worthwhile and convenient if given a quiet place and designated time.

Conclusion

We investigated the impact of HT on stress levels of hospital nurses. The results of our study indicate that HT lowered stress levels of hospitals nurses (though in some cases short-

lived) and created an internal calmness that supported the nurse's ability to handle the stress they endure during their shifts.

Currently, there are few holistic interventions to ease stress levels for hospital nurses. The fast-paced environment of hospitals is not likely to change, and nurse's responsibilities will continue to increase bringing greater levels of stress. Our study was inspired by the pervasive literature that suggests HT has a positive influence on the mind-body-spirit connection. The results of our research are promising for nurses. Hospitals would do well to acknowledge the need for stress-reducing interventions like HT and develop creative ways to incorporate them into hospital settings.

As researchers, we acknowledge that pilot studies such as ours open the door to future studies. We offer our work as a starting point for those wishing to initiate new studies, those who wish to replicate our study, and encourage others to research effective ways to reduce the stress levels of hospital nurses.

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APPENDICES

Appendix A

Flyer

Hospital Nurses needed
for a Research Study
on the Effects of
Healing Touch on Stress
THIS IS A VOLUNTEER ONLY STUDY
OPEN TO ALL NURSES
If interested e-mail
healingandstress@gmail.com
no later than 01/15/2018



Images courtesy of: <https://thumbs.dreamstime.com>,
<https://www.megapixel.com>, <http://www.ehstoday.com>,
<http://www.irishhealth.com>

Researchers Amy Kovars & Michele Shapiro: St. Catherine University graduate students in the Master of Arts in Holistic Health Studies



Images courtesy of <http://glow-dayspa.com/slider/candles-rocks/> &
<https://media-cdn.tripadvisor.com>

**Requirements:**

- *All Licensed or Registered Nurses who are employees of St. Joseph's Hospital.
 - *Must be between the ages of 22-65, not pregnant, male or female licensed nurse practicing at St. Joseph's Hospital, literate and healthy
 - *Desire to receive Healing Touch (HT) prior to your shift for possible relief of stress or anxiety
 - ***Willing to dedicate approximately 45 minutes of unpaid time per week over a 6 week period to receive HT (3-4 times in January/February) before your shift**
 - *Ability to recline in a chair or lay flat on a therapy table
 - *Willing to have your blood pressure checked, fill out questionnaires, and complete answers to open-ended questions in a journal after each session.
- NOTE: Only the first 50 applicants will be accepted into the study.**

Incentives:

- *Helps academics and organizations understand if HT reduces stress in nurses
- *Free Healing Touch sessions
- ***\$5.00 Gift card** compensation and a chance to win one of two **\$25 gift cards to Target** for those who complete all requirements of study as listed in informed consent form

Appendix B

Acceptance Email



To: Interested nurses

From: healingandstress@gmail.com

Subject: The Impact of Healing Touch on Stress Levels in Hospital Nurses: A Quasi-Experimental Pilot Study

Dear _____,

Congratulations, you have met the criteria for selection into the research study; The Impact of Healing Touch on Stress Levels in Hospital Nurses: A Quasi-Experimental Pilot Study.

Attached you will find an Informed consent form which we ask that you read thoroughly, noting any questions you may have prior to our consultation. We have also attached information on the Healing Touch (HT) techniques Mind Clearing and Chakra Connection that will be used.

We ask that you provide us via email (healingandstress@gmail.com) with 5 times prior to your shift that you will be available to participate in a consultation with one or both of the researchers, and to schedule your 4 weekly HT sessions with a practitioner (the study takes place over a 6 week period running from January - February, 2018).

Your consultation may take 15-20 minutes. We will try to answer all questions you may have about the study and our methods. If you choose to participate, you will be asked to sign the Informed consent form. Please note that there are no repercussions from either HealthEast nor St. Catherine University should you choose not to participate. The choice is entirely your own.

The first HT session will take 45 minutes. The second and third HT sessions should take 30-35 minutes. The final session will require 45 minutes to complete the study. The first session will include the Depression Anxiety Stress Scale (DASS) which takes approximately 5-7 minutes to complete. Every session will include having your blood pressure taken by a researcher prior to the HT session, and after it is over. At the end of the first session you will be given a journal, asked to answer 3 questions and also provide a short description of your personal HT experience after each of the 4 sessions. Journals will be collected by the researchers at the end of the session.

All participants will receive free Healing Touch sessions and are eligible for a \$5 gift card. In order to be eligible for the gift card to either the hospital cafeteria or Claddagh Coffee in St. Paul, participants must complete all 4 sessions of the study, answer the majority of the questions on the surveys and journals, and allow the blood pressure readings. In addition, two participants' names who **complete** the entire study will be randomly drawn from a hat to win a \$25 gift card to Target.

If you have questions you'd like answered prior to the consultation, please contact us at healingandstress@gmail.com.

Welcome and thank for your interest.

Sincerely,

Amy Kovars, RN
Michele Shapiro, TRS
Contact: healingandstress@gmail.com

Appendix C

Informed Consent Letter

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Study Title: The Impact of Healing Touch on Stress Levels in Hospital Nurses: A Quasi-experimental Pilot Study

Principal Investigators: Amy Kovars, BSN, RN and Michele Shapiro, BA, TRS

Study Location: St. Joseph's Hospital

Phone Numbers: Amy Kovars: 507-273-9729; Michele Shapiro: 651-247-1955

INTRODUCTION

You are invited to participate in a research study called "The Impact of Healing Touch on Stress Levels in Hospital Nurses: A Quasi-experimental Pilot Study." This study is being done by Amy Kovars and Michele Shapiro, Masters' candidates in Holistic Health Studies at St. Catherine University in St. Paul, MN. This form describes the study and the possible benefits and risks that you may experience if you choose to participate. Please read this form carefully and ask any questions that you may have before agreeing to take part.

PURPOSE OF THIS RESEARCH

The purpose of this research is to explore the impact of Healing Touch (HT) on stress levels in hospital nurses. HT is a gentle biofield therapy that uses intention with or without touch to support physical, spiritual, mental and emotional health. This study is important because it will evaluate HT as a technique for assisting nurses in coping with stresses related to the rigors of hospital nursing. You are being asked to participate because you are a licensed nurse at St. Joseph's Hospital between the ages of 22 and 65. Approximately 20-50 nurses (male and female) will be asked to take part. If you agree to participate, your involvement in this study will last 6 weeks. The results of this research will be written in a Master's thesis and published in St. Catherine University's on-line library, Sophia.

DESCRIPTION OF THE RESEARCH

Recruitment

Information about how to sign up for this study will be sent to you in an email from your nurse manager and will also be posted in a flyer in the cafeteria. If you meet the study inclusion criteria and are selected to participate, you will be informed via email

of your acceptance into the study. We ask that you provide us via email (healingandstress@gmail.com) with 5 times (over a 6 week period between January and February 2018) prior to your shift that you would be available to participate in a consultation session with one or both of the researchers and to schedule your 4 weekly HT sessions. The email confirmation from the researchers will note where the HT sessions will take place, information about the HT practitioners, and 2 attachments. The first attachment will be a copy of this consent form for you to review prior to your intake consultation. The second attachment will be a document that explains what HT is and what to expect during the sessions.

Intake Consultation

You will be emailed an intake consultation form via “google forms” prior to the study. The form will take a few minutes to complete. We will answer any questions you may have about the study via email or phone. If you decide to participate, you will be asked to sign the consent form. You will be provided with a copy of the consent form and assigned a study number. This number (rather than your name) will be used to set up your HT sessions and will be associated with all the study documentation.

Pregnant women will not be allowed to take part in this study because HT techniques are used over the abdomen and may affect the embryo/fetus. Female participants will be asked to sign a statement confirming that they are not pregnant before joining the study.

Healing Touch Sessions

Each healing touch session will consist of 30 minutes of HT techniques including Modified Mind Clearing and Chakra Connection, before your shift starts. During the sessions, you will be invited to lie fully clothed on a massage table or recliner. The Healing Touch Practitioner (HTP) will ask permission to use gentle touch, with hands on the body at the energy points, but held above the points in the breast and pelvic regions (6-8 inches above those areas), or hands off, with hands held approximately 6-8 inches above all energy points. Modified Mind Clearing includes nine positions around the head and face, and Chakra Connection includes fifteen positions from the feet up to the crown of the head. You will be given a journal at the first HT session and asked to respond to 3 questions about HT and its impact on your work at the hospital that day. You may also note any personal reflections you have about your HT experience. The journal entries should be completed immediately after your work shift ends. We will collect the journals after your last HT session.

- HT Session 1 will last approximately 45 minutes, before your shift begins. You will be asked to complete The Depression Anxiety Stress Scale-21 (DASS-21) questionnaire prior to starting HT. The questionnaire will take approximately 10 minutes to complete. You will also be asked to complete a Stress Thermometer, which should take 1-2 minutes to complete. Your blood pressure will be taken before and after your HT session[FA1] . You will receive

30 minutes of HT. Upon completion of the session, you will be reminded to complete a journal entry regarding your experience with HT and its impact on your work over the course of the day. Please answer the journal questions immediately after your work shift ends. **Note:** if your blood pressure readings are abnormal, you will be asked to seek your personal physician's opinion.

- HT Session 2 will last approximately 30-40 minutes, before your shift begins. Your blood pressure will be taken before and after you receive HT. You will be asked to respond to the journal questions at the end of your work shift.
- HT Session 3 will last approximately 30-40 minutes, before your shift begins. Your blood pressure will be taken before and after you receive HT. You will be asked to respond to the journal questions at the end of your work shift.
- HT Session 4 (final session) will last approximately 45 minutes, before your shift begins. You will be asked to complete the DASS-21 and the Stress Thermometer prior to your session and your blood pressure will be taken before and after you receive HT. Your journal will be collected at the end of the session and we will conduct a short exit consultation to answer any questions that you may have about HT and/or the study.

What if I decide I don't want to be in this study?

Participation in this study is completely voluntary. If you decide you do not want to take part, please say so and do not sign this form. If you decide to participate, but later change your mind and want to stop, please notify one of the researchers and you will be removed from the study. You may withdraw from the study at any time. Your decision not to participate will have no effect on your employment, your relationship with HealthEast, St. Catherine University, or with any of the students or faculty involved in this research.

What are the risks to me if I am in this study?

There is a small risk to privacy as you will be sharing personal information about yourself with the researchers. Also, other study participants and hospital employees may see you enter and exit the HT rooms. The researchers will take steps to protect your privacy, including de-identifying the information that is collected and keeping the study data secure by storing it in a locked file within a locked office.

Healing Touch is very safe, but injury can occur when climbing onto and off the massage tables used to conduct the HT sessions. The tables will be checked for possible safety issues and you will be assisted onto and off them, if needed. You may also receive HT in a recliner, if you choose.

Because this study involves nurses who may be feeling particularly stressed or anxious, additional information about resources outside of this study, including mental health resources, are available.

What happens if I am injured during this study?

In the event that you are injured as a result of taking part in this study, medical care will be provided to you. Treatment for such injuries will be paid for by you or your insurance company. If you think you have suffered a research-related injury, please let us know right away. You do not give up any of your legal rights by signing this form.

What are the benefits of participating in this study?

The benefits of participating in this study include receiving Healing Touch.

COMPENSATION/COST

Participants will receive free Healing Touch sessions. Nurses who complete the study may be eligible to receive a \$5.00 gift card to either the St. Joseph's Hospital cafeteria or Claddagh Coffee, a coffee house in St. Paul. In order to receive a gift card, you must complete all 4 HT sessions. This includes having your blood pressure taken and completing the study questionnaires and journal entries. In addition, two participants' names who complete the entire study will be randomly drawn from a hat to win a \$25 gift card to Target (participants may opt out of this drawing if they wish to do so). It will not cost you anything to participate in this study.

ALTERNATIVES TO PARTICIPATION

Participation in this study is entirely your choice. The alternative is not to participate.

NEW INFORMATION

Any significant, new information that is learned from this study that may influence your willingness to continue to participate will be provided to you. The decision to continue or leave the study should this happen is entirely yours and there are no penalties for your decision.

CONFIDENTIALITY

The information collected for this study will not include your name. You will be assigned a study number that will be used for all data collected, including the information contained in your journal. No information that can identify you will be released or made public.

At the time of your consultations, the researchers will be taking notes. All data, materials and notes associated with this research will be kept confidential and in a locked file cabinet within a locked office or stored on a password-protected computer.

The results of this research will be written in a Master's thesis and published in the St. Catherine University online repository, Sophia.

The HealthEast Institutional Review Board (the committee that oversees the rights of people in research studies) may inspect your study records to ensure that the study is being conducted properly.

CONTACT PERSONS

Amy Kovars (507-273-9729) and Michele Shapiro (651-247-1955) can answer any questions you may have about this study. You can also contact Carol Geisler, Ph.D., Master of Arts in Holistic Health Studies at St. Catherine University, at 651-245-3844 or ccgeisler@stkate.edu with questions. In addition, you may contact Dean Huska, Chairperson of HealthEast Institutional Review Board at (651) 232-3234 or dhuska@healtheast.org with questions about your rights as a subject in a research study.

VOLUNTARY PARTICIPATION

Participation in this study is completely voluntary. If you decide you do not want to take part, please feel free to say so, and do not sign this form. You may withdraw from the study at any time. Your refusal to participate in this study will not affect your relationship with HealthEast or Catherine's University and will not involve any penalty or loss of benefits to which you are entitled.

CONSENT

My signature indicates that I have read all the information contained in this document, and my questions have been answered to my satisfaction. I also know that even after signing this form, I may withdraw from the study by informing the researchers.

I willingly give my consent to participate in this study. Upon signing, I will receive a copy of this consent form.

Name of Participant: _____

Signature of Participant: _____

Date: ____ / ____ / ____

I confirm that I have personally explained the nature, purpose, duration, and foreseeable benefits and risks of the study to the participant named above.

Name of person who administered
consent_____

Signature

Date

*NOTE: Do you wish to be entered into a drawing for one of two \$25.00 Target Gift
cards?_____Yes_____No

Appendix D

Healing Touch Description

What is Healing Touch?

Healing Touch (HT) is a gentle biofield therapy that arose from nursing in the 1980's and uses intention with or without touch to support physical, spiritual, mental and emotional health (Healing Beyond Borders, 2017; Anselme, Kagel, & Wardell, 2014). HT is a safe, standardized, non-invasive technique, and complements conventional medical care for stress and anxiety relief, and increased recovery from surgery and/or illness (Healing Beyond Borders, 2017; MacIntyre, Hamilton, Fricke, Ma, Mehle, & Michel, 2008; McElligott, Holz, Carollo, Somerville, Baggett, Kuzniewski, & Shi, 2003; Maville, Bowen, & Benham, 2008). Healing Touch Program Inc. (2017) is peer-reviewed and accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission of Accreditation. In 1996 HT became endorsed by the American Holistic Nurses Association (AHNA) and the Canadian Holistic Nurses Association (CHNA). The National Institute of Health recognizes HT as a biofield therapy and nursing intervention (Healing Beyond Borders, 2017).

What to expect during a Healing Touch session?

During a HT session, you can expect to lie fully clothed on a therapy table (massage table), a recliner, or you can even sit in a chair. We will use a room at St. Joseph's, that is quiet and peaceful. A blanket and pillow will be offered for your comfort. The practitioner will ask if you prefer "hands-on" or "hands-off" during the therapy. Hands-on includes gentle placement of the practitioner's hands on energy points, known as chakras, in your body. Examples are hands resting on the sides of your head, on your shoulders, knees, and abdomen and each position is held for a couple minutes. Their hands will not move or massage you in any way. "Hands on" will not be done on your pelvic area, when a practitioner reaches that point, they will place their hands in the energy field (6-8 inches above the energy point) without touching you physically. If you prefer hands-off, the provider will hover their hands approximately 6-8 inches over these same energy points.

Appendix E

Non-Pregnancy Letter

Date:

To the Research team:

I, _____ do hereby state that I am not pregnant at this time. Furthermore, should that change at any time during the study, I will asked to be withdrawn from the group.

Sincerely,

Printed Name

Signature

Appendix F

Intake Survey Email

(Emailed to participants prior to the start of the study via google forms)

How many years have you been a nurse?

What is your licensure level? (LPN, RN, APN).

LPN

RN

APN

How long have you worked at St. Joseph's?

Your answer

What gender do you identify with?

Your answer

Have you experienced Healing Touch before?

Yes

No

Do you have training in Healing Touch?

Yes

No

Females only: Is there a chance you are pregnant?

Yes

No

Females only: Do you have your letter stating you are not pregnant?

Yes

No

Do you have any questions about the content of the letter of consent?

Yes

No

Please provide your email address and/or phone number.

SUBMIT

Appendix G

Depression Anxiety Stress Survey (DASS-21)

Note: We are using the University of New South Wales, Australia's Depression, Anxiety, Stress Survey for both pre and post-study stress testing, with a modified scale. We will be asking participants to fill out the survey in person prior to the first Healing Touch session and after the last Healing Touch session. We note the original source below.

DASS 21 <i>Name: Date:</i>			
Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you <i>over the past week</i> . There are no right or wrong answers. Do not spend too much time on any statement.			
<i>The rating scale is as follows:</i> 0 Did not apply to me at all 1 Applied to me to some degree, or some of the time 2 Applied to me to a considerable degree, or a good part of time 3 Applied to me very much, or most of the time			
1	I found it hard to wind down	0	1 2 3
2	I was aware of dryness of my mouth	0	1 2 3
3	I couldn't seem to experience any positive feeling at all	0	1 2 3
4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1 2 3
5	I found it difficult to work up the initiative to do things	0	1 2 3
6	I tended to over-react to situations	0	1 2 3
7	I experienced trembling (e.g., in the hands)	0	1 2 3
8	I felt that I was using a lot of nervous energy	0	1 2 3

9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

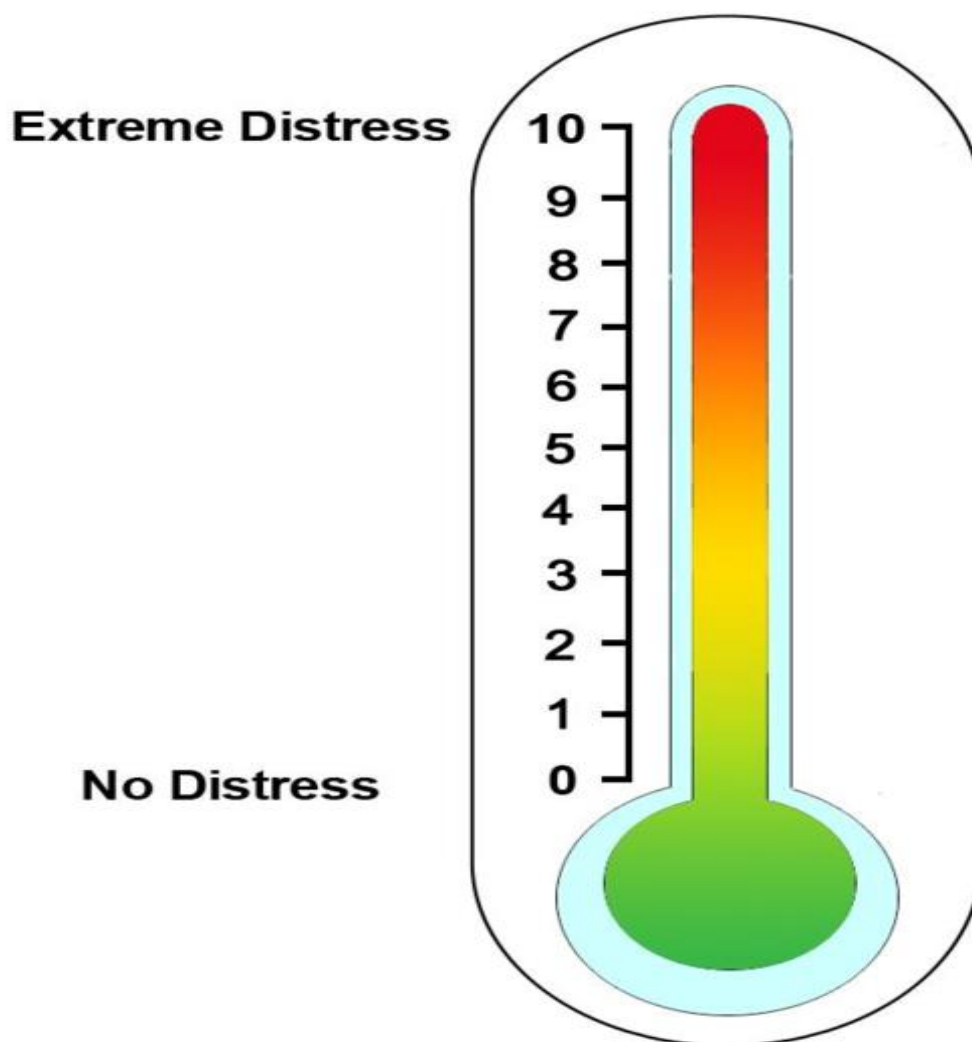
Source: <http://www2.psy.unsw.edu.au/groups/dass/>

Appendix H

Stress Thermometer

Please circle or pick a number (0-10) from the drop down box that best describes how much distress you have been experiencing in the past week including today.

Pick a number



Source: <https://www.nccn.org/about/permissions/thermometer.aspx>

Appendix I

Journal Sample

Journal for The Impact of Healing Touch
on Stress Levels in Hospital Nurses:
A Quasi-Experimental Pilot Study
Research team of Kovars & Shapiro, 2018



Participant # ____

Image courtesy of: <http://heart-to-heart-healing.com/2014/05/12/what-is-energy-healing/>

Instructions:

There are 3 questions/statements, 1 per page and one page for personal reflections regarding that week's Healing Touch session's effect on you.

Please answer all questions/statements after each healing touch session. Respond with sentences, do not use yes/no responses.

For the first session, answer the questions as best you can, as we realize they will reflect a week that did not include a Healing Touch session.

Your personal reflections page is to describe how the Healing Touch session impacted you. You may describe emotions, thoughts, or visuals that may have occurred.

You may use both sides of the page if needed.

Pp. 2-5

Week ____

Q1: What impact did Healing Touch have on your stress and anxiety levels as a hospital nurse?

Q2: What was your overall experience of the Healing Touch session?

Q3: How did the Healing Touch session impact your work at the hospital today?

Personal reflections on my Healing Touch experience.

Note: Each question will have its' own page and be in booklet form. There are 4 sets of pages 2-5, one set per week.

Appendix J

Exit Survey Email

We have invited you to fill out a form:

Thank you for participating and completing the Healing Touch research study. Please complete the following questions.

Please share your experience of Healing Touch in this study with us

How did you feel on days you received Healing Touch?

Was the Healing Touch useful?

How did receiving Healing Touch affect your stress level at work?

Do you have any concerns, we as the researchers need to be aware of?

To help us track who finished the requirements for the study, please provide your name, phone number, and work mailing address.

Thank you for taking the time to answer the survey. After we receive your envelope with your data, we will mail your \$5 gift card to your work address. We will do a random drawing on March 14, 2018, for two \$25 gift cards to Target and let you know via email if you are the winner. This will be sent to you along with your \$5 gift card.

Appendix K

Healing Touch Practitioner Guidelines

1. Complete the HealthEast RepTrax and confidentiality letter. Email letter to tlverner@healtheast.org
2. Keep things professional.
3. Before you begin the Healing Touch session, please take a few deep breaths, center yourself and ask the client what intention they would like you to set. Set the intent for the session.
4. Do the usual, asking hands on or off, explaining the process.
5. Please, no small talk not related to the healing process.
6. Feel free to play soft music, but please - no guided imagery.
7. We are asking that you do chakra connection and a modified mind clearing - nothing else at this time. We are trying to keep it simple, and not too time intensive for anyone.
8. Try not to say what you encounter in their energy field, even if they ask you. Since it's a study, we don't want them second guessing what's happening or trying to guess the meaning of anything one of us would say.
9. Do not discuss your clients with each other or anyone, other than the research team.
10. At the first session, we ask that you give each participant a copy of the Mental Health Resources sheet. It is a precautionary measure, and all participants will receive one.
11. ABOVE ALL, if a participant mentions suicide, verbalizes extreme stress or demonstrates extreme agitation inform the research team immediately.

Appendix L

Mental Health Resources

“Don't judge my path if you haven't walked my journey.” Lauren L.

National Suicide Prevention Lifeline

is a toll-free number: 800-273-TALK (8255)

Minnesota Crisis Connection Hotline (612) 379-6363

Available 24/7 - 365 days per year. FREE Emergency counseling available immediately, confidential. For more information visit their website at <https://www.canvashealth.org/crisis-support/crisis-connection/>

Not all sources below did not note hours of service availability. Hours are listed for those that noted them.

Mental Health Resources Inc: *Corporate office* (651) 659-2900 *Dakota Burnsville, MN* (651) 681-9366. *Minneapolis, MN* (612) 333-0331.

Nonprofit, offering in home and outpatient services to individuals in need of mental health assistance. Several locations in the Twin Cities and Duluth. The Seward location is a drop-in center. For more information visit their website at <http://www.mhresources.org/>

Touchstone Mental Health Minneapolis, MN (612) 874-6409.

Nonprofit, utilizes holistic methods to help those with mental health issues. Intensive residential treatment, community programs, assisted living, clinics, home health services and more. For more information visit their website at <https://www.touchstonemh.org/>

Anxiety Treatment Resources Edina, MN (952) 854-2622.

Private clinic. They treat a variety of anxiety disorders such as: OCD, PTSD, agoraphobia, panic attacks, perfectionism and more. Evidence-based therapy (joins clinic know-how, with patient values to develop an integrated approach to treatment). For more information visit their website at <https://www.anxietytreatmentresources.com/>

Headway Emotional Health Services Golden Valley, MN (763) 746-2400 Richfield, MN (612) 861-1675.

Headway is a nonprofit, that offers mental health services for all ages, including family counseling and couples therapy. Outpatient treatment programming, education, and intervention. Hours are 8 a.m. - 8 p.m. at the Golden Valley and Richfield locations. For more information visit their website at <https://www.headway.org/home/>

Fairview Psychiatry Clinic Minneapolis, MN (612) 672-6999

In Emergency OR Crisis call 911. Various locations throughout the Twin Cities and State. Fairview offers in-patient counseling and substance abuse programs. Clinical settings or hospital settings. They collaborate with University of Minnesota Physicians and Psychiatry department to provide clients with individualized care plans. Emergency services are available 24/7. For more information visit their website at <https://www.fairview.org/overarching-care/behavioral-health-services>

Allina Mental Health Minneapolis, MN (612) 863-5327

Mental Health and Addiction Connection 866-603-0016 Allina offers group or individual therapy, mindfulness and arts-based day treatment program, in-house patient treatments and substance abuse programming. Office hours: Monday-Thursday 8 a.m. - 5 p.m. Fridays 8 a.m. - 12:30 p.m. For more information visit their website at <https://www.allinahealth.org/Health-Conditions-and-Treatments/Mental-Health/>

Regions Hospital St Paul, MN (651) 254-3456 In Emergency OR Crisis call 911

Regions offers inpatient and outpatient mental health treatments at clinics located throughout the Twin Cities. Treatments include pet therapy, arts-based therapies, and family therapies. American Sign Language interpreters are available. For more information visit their website at <https://www.regionshospital.com/rh2/specialties-and-doctors/specialties/mental-health/index.html>

Urgent Care for Adult Mental Health St Paul, MN (651) 266-7900

24/7 walk-in Urgent Care, mobile crisis team, and phone support. Serving Ramsey, Dakota, and Washington counties. They work with all mental health issues. Walk-in services: Monday - Friday 8 a.m.-7 p.m. Saturday - Sunday 11 a.m. - 3 p.m. For more information visit their website at https://www.minnesotahelp.info/Index?aspxerrorpath=/Providers/Ramsey_County_Mental_Health